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An Organizational Systems Approach to the Causes of Academic Cheating: Interactions among Rule Clarity, Purpose, and Role in School

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An Organizational Systems Approach to the Causes of Academic Cheating: Interactions Among Rule Clarity, Purpose, and Role in School

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ABSTRACT

Academic cheating attracts considerable attention as a problem that appears to undermine society's effort to prepare young people for responsible civic participation. Despite intense scrutiny, researchers continue to debate its causes. This investigation tested the application of an organizational systems theoretical approach to cheating. The experimental design included mixed methods and a sample involving grade 7-12 students, teachers, and parents in one international school. Participants were randomly assigned to one of six versions of an investigator-devised hypothetical collaborative learning scenario. Each version of the scenario varied according to three levels of *rule clarity* and two levels of *purpose*. Survey item one asked participants to read the scenario and rate whether or not they thought cheating had occurred. Survey item two asked participants to report a reason for the rating judgment by selecting from five button-box options and/or writing in their own open-ended comment. Separate analyses of variance were conducted for the rating data. Results showed that the *rule clarity* variable had a significant effect on teacher (not student or parent) judgments and the *purpose* variable had a significant effect on parent (not student or teacher) judgments. An interaction effect was found for the teacher data set. A content analysis of the follow-up responses found that four factors accounted for rating judgments: the clarity of rules, the purpose of the task, the nature of student collaboration, and school policy. The groups consistently reported that the attribution of cheating depended on the teacher's rule communication. Unclear rules can lead to a gray area in the interpretation of student intentions and behaviors. The role of grades is a further source of confusion. Findings support the theory that academic cheating has roots in the social environment of schooling. School leaders need to ensure that all community members understand and are in agreement about academic expectations.

CHAPTER ONE

Purpose of the Study

The purpose of the present study was to test the application of an organizational systems theoretical approach to academic cheating. This study used an experimental design that asked three sets of school community members (students, parents, and teachers) in one international school to respond to hypothetical collaborative learning scenarios. A basic scenario contained a description of a collaborative learning situation for students. However, each scenario included a two or three sentence statement based upon combinations of three versions along a *rule clarity* dimension and two versions along a *purpose* dimension that produced six different versions of the scenario. Participants within each set of school community members were randomly assigned to one of the six scenarios. Participants rated whether cheating had occurred in their assigned scenario using a five-point Likert-scale. They then commented on the factors that contributed most to the rating decision. The study hypothesized that, for each demographic group, the clarity of the rules and the expected outcome of the learning activity would likely influence whether the participants rated the students' behavior in their assigned scenario as cheating or not.

Prevalence of Academic Cheating

Academic cheating exists. Almost half a century ago, Bowers (1966) reported that over 50% of college students cheated, sparking intensive study of the problem. Key college-level studies (e.g., Diekhoff, LaBeff, Clark, Williams, Francis, & Haines, 1996; Haines, Diekhoff, LaBeff, & Clark, 1986; Vandehey, Diekhoff, & LaBeff, 2007) have produced sufficient empirical evidence to support Bowers' 50-60% figure

as a generally reliable percentage of college students who report that they have engaged in at least one type of cheating. One of these studies that used the same self-reporting instrument with separate samples of college students in 1984 and 1994 (Vandehey et al.), two recent, large-scale high school studies (Josephson Institute, 2008, 2011), and the most significant meta-analysis to date (McCabe, Trevino, & Butterfield, 2001) have concluded that cheating prevalence may be on the rise. However, these and most other cheating studies have relied on data gathered from students reporting on their own behaviors without adequately controlling for whether student self-reporting is a reliable method for measuring cheating prevalence. For example, it was unclear whether Vandehey et al.'s finding of a 4% drop in self-reported cheating in their 2004 follow-up study was the result of changes in students' willingness to self-report cheating or evidence that cheating prevalence was in fact not on the rise. Approximately 25% of the students sampled in the Josephson studies reported that they had lied somewhere on the survey. McCabe et al.'s meta-analysis acknowledged that students' classification of what constitutes an instance of cheating has likely changed since Bowers.

Determining the exact scale of the problem depends on how a person defines cheating. Studies using similar student self-reporting methods but different operational definitions of cheating have found that the prevalence of cheating in college can range from as high as 80-90% (Central Connecticut State University (CCSU), 2004; Hard, Conway, & Moran, 2006; Vowell & Chen, 2004) to as low as 10-20% (Pulvers & Diekhoff, 1999; Rabi, Patton, Fjortoft, & Zgarrick, 2006; Syer & Shore, 2001). Hard et al. found that rates ranged from 8% to 65% depending upon the type of misconduct that was measured. Similarly, the Josephson Institute (2011) found that some forms of cheating were far more common than others among high

school students when 80.6% of the 40,784 students sampled reported copying a peer's homework whereas 59.4% reported cheating on a test and 33.9% reported copying an Internet document. New forms of cheating continue to emerge.

Most empirical data on academic cheating and its prevalence has been gathered from college students. However, cheating appears to be more prevalent at the high school than college level. In an investigation at the high school level, Schab (1991) asked separate samples of over one thousand high school students in 1969, 1979, and 1989 when they thought cheating was at its worst – elementary, high school, or college? In all three samples, students replied that cheating was at its worst during high school. Although the basis for comparison with college was what students "had heard about" college, the comparison with elementary school was based on experience. The participants sampled in 1989 reported that 97.5% had let others copy their work, while 67.8% had used a 'cheat sheet' on a test and 76.1% had copied, word for word, out of a book. Conner, Pope, and Galloway (2009) found that cheating was most acute near the end of high school when 95% of a sample of 3,645 American high school juniors and seniors reported cheating. These rates are well above the 50-60% prevalence rates consistently reported in college-level studies (e.g., Bowers, 1966; Diekhoff et al., 1996; Haines et al., 1986; Josephson Institute, 2006; Vandehey et al., 2007).

Three Perspectives on the Causes of Cheating

Leading educational theorists have long agreed that schools must provide moral education that prepares students for responsible participation in society (Dewey, 1929; Goodlad, 1997; Kohlberg, 1984; Noddings, 2005; Piaget, 1965). Yet approximately one out of two college students and three out of four high school

students consistently report that they have cheated in school. Social psychologists and educators agree that cheating is a problem that undermines the mission of education. The literature from social psychology shows that three main theoretical orientations have been applied to research that aims to explain the causes of this problem: a) the *demographic*, b) the *psychological*, and c) the *environmental*.

The Demographics of Cheating

Sociologists first contended that academic cheating was an individual act of moral misconduct that violated the basic value of honesty that most people believed was necessary for responsible citizenship. In order to help schools react to a problem that people agreed was clear-cut student dishonesty, behavioral scientists used the student as the unit of analysis to develop a demographic profile of the cheater. Prevalence data presented a pattern of cheating rates peaking in high school and subsequently falling somewhat in college, leading researchers to hypothesize that student age was a likely correlate of cheating behaviors and attitudes. In a comparison of high school, undergraduate, and postgraduate students from four different countries, a key finding that was consistent across cultures was a decrease in student tolerance of peer cheating as students aged from the end of high school onwards (Magnus, Polterovich, Danilov, & Savvateev, 2002). Similarly, McCabe (1999) found that high school aged students were more blasé and less concerned about the significance of cheating than college students. His findings are tenuous because he appeared to be the only researcher running the focus groups and the only coder in categorizing students' utterances. Brandes (1986) found that early adolescents reported significantly less cheating than older adolescents. For example, only 28% of 6th graders reported that they had used crib notes on a test whereas 73.5% of the older

high school students reported that they had. Anderman and Midgley (2004) sampled students transitioning from middle to high school and found that a significant increase in self-reported cheating was evident at the age when students move from 8th grade to 9th grade. With a sample of only middle school students, Anderman, Griesinger, and Westerfield (1998) found that 39% of the subjects reported cheating, a number significantly lower than prevalence rates in high school and college studies. Although the research has not satisfactorily controlled for the confounding effects of individual maturity level, amount of time spent in school, or climate of schooling, the relationship between student age and cheating appears to be curvilinear (Miller, Murdock, Anderman, & Poindexter, 2007).

Other studies have tested the relationship between cheating behavior and demographic variables such as gender, ethnicity, amount of education, major in university, participation in sports, fraternity-sorority membership, marital status, grade-point average (GPA), and financial dependence on parents. Several studies found that 'cheaters' were usually male (Bowers, 1966; Poltorak, 1995), single (Haines et al., 1986; Vandehey et al., 2007; Vowell & Chen, 2004), had lower GPAs (Bisping, Patron, & Roskelley, 2008; Haines et al.; Schab, 1991), and were dependent on parents for finances (Diekhoff et al., 1996; Haines et al.; Vandehey et al.). Although these and other studies have presented a case for demographic factors, they did not share a common definition of cheating and the results indicated nothing more than a weak correlational relationship between these variables and reported cheating. In addition, variables such as marital status were insignificant ones for educators trying to address such a pervasive academic problem. Other studies with samples ranging from a few hundred students to the tens of thousands (Anderman et al., 1998; Daniel, Blount, & Ferrell, 1991; Josephson Institute, 2008) have not found

meaningful relationships between academic cheating and most demographic variables. Thus, researchers began to express doubt about the predictive relevance of student demographics.

The Psychology of Cheating

Given the limitations of demographic data in explaining the causes of cheating, social psychologists proposed a psychological approach. For example, one series of studies (Daniel et al., 1991; Diekhoff et al., 1996; Haines et al., 1986; Pulvers & Diekhoff, 1999; Vandehey et al., 2007) applied Sykes and Matza's (1957) theory of delinquency to hold that a neutralization of deviance attitude defined the difference between a cheater and non-cheater. Data showed that some students justified cheating behavior with excuses such as not feeling remorse because no one was harmed. These studies used this evidence to conclude that cheaters had a psychological deficit. However, the method of grouping all students who reported cheating under the blanket label 'cheater' regardless of age or frequency of cheating oversimplified the classification and interpretation of student behaviors. Evidence now shows that individuals cheat infrequently (CCSU, 2004; Hard et al., 2006). Whereas 89.5% of the student sample in the CCSU study reported cheating "at least once," the mean frequency for 16 types of cheating was 1.49 with 1 representing "Never" and 2 "Seldom" through to 5 "Very often." The realization that cheating increased in adolescence yet repeat-offending was not a big part of the problem led researchers to suspect other forces at work. Studies (e.g., Lobel & Levanon, 1988; Vowell & Chen, 2004) that compared the influence of psychological traits and social variables have found that although impulsiveness and self-esteem affected cheating behavior, the social learning variables such as perception of peer behavior and

understanding of expectations exerted the greater influence. Granitz and Loewy (2007) found that students believe being confused about rules better explains their motivation in a cheating situation than a psychological factor such as lack of remorse. Simplifying cheating to a single pathological predictor has not occurred.

The developmental perspective offered an alternative but equally unsuccessful approach. Kohlberg (1966) theorized that an immoral act such as cheating existed in all of us and was not a good indicator of immoral character until a person developed a set of moral principles. Thus, cheating would only indicate the existence of an ego strength deficit once a student was old enough to distinguish right from wrong. However, religious interventions such as moral education programs designed to systematically improve student character and reduce dishonest behaviors do not have the support of evidence showing that they work (Davis, 2003). For example, Bruggeman and Hart (1996) tested the hypothesis that the conditions of a Catholic education would reduce cheating by helping students develop as moral thinkers. They found in their comparison of high school students from similar socio-economic backgrounds that the 90 students enrolled in Catholic high schools did not in fact report significantly lower rates of cheating than the 131 students in private high schools. The self-reported rate of cheating was above 70% for both groups. Moreover, the study found that the Catholic school students did not rate higher than the secular school students in moral reasoning competence. Similarly, Arnold, Martin, Jinks, and Bigby (2007) did not find a difference in cheating prevalence between traditional and 'character building' colleges. Berkowitz and Bier (2004) discovered in their review of character education programs that variables such as appropriate staff development and continuous parent involvement were key conditions that moderated the influence of these interventions.

However, honor codes have been shown to reduce cheating in some schools. McCabe and Trevino (1993) found in a comparison of 14 honor-code colleges and 17 non-code colleges of similar profiles that self-reported cheating rates were lower in the code settings. Although their academic dishonesty variable was skewed and they ultimately needed to use a log transformation to recalculate their composite cheating measure, the study found that on a 12 to 48 scale with 12 representing no cheating, the mean cheating score of 14.00 for the code schools was significantly lower than the mean of 16.56 for the non-code schools. One key finding helped clarify why a difference was found. Codes defined cultural expectations and helped students understand the rules. This concept of rule clarity explained why one school had no code yet one of the lowest misconduct rates in the sample. The school had effectively stated its expectations and then followed through with orientation sessions to ensure that the rules were understood.

Codes therefore appeared to be a significant correlate of cheating but did not predict it alone because non-code schools can effectively reduce cheating through other rule systems that clarify values and ensure that rules are well understood (McCabe, Trevino, & Butterfield, 1999). A clear communication of expectations and not moral pleas appeared to activate a code's effectiveness. The McCabe et al. (2001) meta-analysis listed "clearly communicate expectations" as the first of twelve strategies that students recommend to address cheating. Adams, Taschian, and Shore (2001) in a study on business codes and their influence on ethical behavior in the workplace found that codes affected ethical behavior simply by heightening awareness to behaviors that the company valued. A review of the literature supports the theory that rule-breaking behaviors may not be biologically derived but socially initiated (Merton, 1938).

The Environment for Cheating: Rule Clarity and Purpose

The conclusion that factors such as effective communication may reduce cheating has led to using an environmental approach to conceptualize what causes the behavior. Using the school as the unit of focus, studies have increasingly applied an organizational perspective to investigate whether ecological factors such as institutional policies and rules predict cheating prevalence. Other studies have used goal theory to investigate whether a performance culture unintentionally nurtures the behavior.

Rule Clarity. School leaders write the policies that define institutional expectations. Encouraging school leaders to think about whether or not their policies and rules are well communicated in the schoolhouse may help them better understand why students cheat when nothing is psychologically wrong with them. The concept of rule clarity appears in many scales designed to measure academic climate (Fraser, 1998; Hearn & Moos, 1978) and can help to explain how a learning situation can be difficult to interpret when students do not know what is expected of them. Chen and Tang's (2006) experiment showed that when a situation was clearly understood to be unethical students were less likely to engage in unethical behaviors. Using a convenience sample of business and psychology students was a limitation and the finding applied specifically to students in two majors at one American university, nonetheless the study measures proved reliable. Zito's (2009) qualitative study involving younger students in middle school found that students looked specifically to teachers for direction and the students who did not understand a teacher's expectations were more likely to cheat. Data gathered from the focus-group member interviews supported this finding. For example:

> Another student explains that with bad instruction 'there are going to be a lot of grey ideas where you are not sure if what you are doing is cheating.' Whereas, if a teacher gives 'good instructions you will probably know it is bad.' (p. 127)

A clear communication about desired conduct seems to help guide students as they are making decisions about their own behavior. Recent literature concerning the middle, high school, and college levels (e.g., Bernardi, Metger, Bruno, Hoogkamp, Reyes, & Barnaby, 2004; Strom & Strom, 2007a) has concluded that schools need to clearly communicate expectations and ensure that students understand them.

Apparently the problem confronting a person leads to a consideration of specific environmental forces that control how far a person's ethical intentions translate into ethical actions (Austin, Collins, Remillard, Kelcher, & Chui, 2006; Thorne & Saunders, 2002). Thoma and Rest (1999) found when they tested Kohlberg's developmental theory that people considered the specific conditions of a problem before acting. Instead of the relationship between ethical thought and action being linear, the participants applied numerous rule systems to reduce confusion in deciding how to behave. People learned that a single set of rules does not apply to all situations, developing multiple co-existing decision-making systems to cope with such a reality. For example, in the case of student decision-making in a potential cheating situation significant evidence shows that students often look to their peers for guidance (Bowers, 1966; Carrell, Malmstrom, & West, 2008; McCabe et al., 2001; McCabe, Butterfield, & Trevino, 2006). Overall, when students find themselves in situations without explicit rules to guide them they apparently attempt to socially construct ethical conduct.

Deciding how to behave in a potential cheating situation can be a complicated process for students. Whereas some students may make a deliberate choice to use rule

ambiguity as a way to beat the system, some students may misinterpret situations when the guidelines are ambiguous and break the rules unintentionally. Practitioners such as the head of examination administration and the chairman of the examining board for the International Baccalaureate Organization acknowledge this reality when they report that, "In many cases of alleged plagiarism, it is clear that the candidate did not intend to copy another person's words or ideas and pass them off as his or her own" (Donnan & McCabe, 2003, p.14). Unintended or accidental cheating is difficult to measure and few studies have attempted to do so. A heavy reliance on methods that ask students to self-report involvement in common forms of cheating has largely precluded the collection of data about accidental instances.

However, unintended cheating seems to exist and likely contributes to rates of cheating at all levels of schooling. Lambert, Ellen, and Taylor (2003) found in their study involving college students and teachers in New Zealand that the 113 teachers chose "I didn't think it was wrong" as the single most common reason that students had given them for dishonest behaviors. The study concluded that clearer guidelines were needed to help students understand what constitutes cheating. Rabi et al. (2006) found that 61% of the 296 Pharmacy students they surveyed agreed that cheating was less likely if the teacher was approachable and willing to address questions. Nadelson (2007) found in a survey of college faculty that teachers believed accidental plagiarism was far more common than other forms of cheating and approximately twice as common as purposeful plagiarism. Despite the limitation of a modest response rate (21%) and sample size (n = 72), the study concluded that an environmental intervention that involves faculty being more simple and direct with classroom expectations helps to reduce the confusion that can lead to student cheating behaviors.

Teachers who create a climate of clear expectations can apparently help students learn the difference between appropriate and inappropriate conduct. Hattie's (2009) synthesis of over 800 meta-analyses found that teacher clarity had a significant, large-scale effect (d = .75) on student construction of knowledge and learning outcomes. Only one meta-analyses was used for the teacher clarity variable, nonetheless it ranked 8th out of 138 in the list of factors examined. Few studies have tested the relationship between rule clarity and academic cheating. Brown and Howell (2001) showed the promise of doing so when they assigned 207 students at the University of St Andrews to one of three scenarios (*Educational, Warning, No Information*) that were varied according to the amount and quality of information supplied in a potential plagiarism scenario. Their experiment found that the nature of the information supplied to students significantly affected their beliefs about both the seriousness of the breach of guidelines and the frequency of the type of cheating. The present study similarly applied the concept of *rule clarity* to cheating in three forms: a) clear rules communicated through explicit teacher directions, b) unclear rules communicated through vague directions, or c) no rules communicated so the situation is left open to interpretation. This study hypothesized that rule clarity conditions would affect people's judgment of what constitutes cheating.

Purpose. The concept of rule clarity alone does not explain why so many students who understand what is expected of them still cheat or why high school is such a decisive time for cheating. Organizational theorists (e.g., Gallant & Drinan, 2006) approaching this problem from a cultural perspective have observed a general shift in schools away from the value of mastering of skills to competition for end goals and social rewards. In particular, an emphasis on task performance in many countries, manifested in increased pressure on students to attain high grades and test

scores for the purpose of graduating and gaining admission into elite institutions of higher education, may be responsible for peaking levels of cheating in high school. For example, Bracey (2005) reported that less than 2% of high school applicants gain acceptance into South Korea's top three universities, creating a high-stakes culture at the end of high school and prompting cheating on the college entrance examination. Researchers (e.g., McCabe, 2001) have found that high school students in America consistently report the need to perform for grades as a major reason to cheat. Applying the concept of organizational goal expectations to the cheating phenomenon raises the possibility that students are more likely to justify actions they know to be wrong when they perceive that the pressure to perform is on.

School leaders value assessment results as a key measure of student learning. Yet an organizational emphasis on incentives such as grades may exert stress on students. Anderman et al.'s study (1998) was one of the first to use goal theory to explore why students under performance pressure sometimes choose not to follow the communicated rules. The investigation involving 285 American middle school students examined the relationship between goal orientation and academic cheating. The study found that the students who self-reported cheating behaviors described themselves as being more performance oriented, perceived their classroom as being more performance oriented, and perceived their school as being more performance oriented. The specific setting was the science classroom, the method relied on self-reporting data, and the level of significance was set high for the school-level variable ($p < .10$). Nonetheless, the study's delineation of two primary goal orientations for academic learning tasks offered a useful direction for further investigation of cheating: a 'performance' culture included students getting good grades, competing against one another, and being singled out for good performance whereas the

conditions of a 'mastery' culture included students trying hard, doing creative work, and mastering important skills.

High performance expectations may explain why cheating prevalence peaks in high school. Anderman and Midgley (2004) found that self-reported cheating by 9th graders in the first year of high school increased significantly after transitioning to a performance goal structure. The effect was much less significant for students in the last year of middle school. Zito (2009) found that many middle school students already believe their future rests on grades. Nonetheless, high school students are the ones who actually compete for the grades, class ranking, and test scores that will help them to secure entrance into selective colleges. In particular, the last two years of high school is likely the time of greatest pressure for students, who actually supply performance data to colleges as part of the admissions process. McCabe (2001) reported that many 11th graders knew cheating was wrong but felt it was a necessary response to parental expectations and competition from peers for admission to selective institutions of higher education. Conner et al.'s (2009) investigation into the effect of environmental stress in high school on students' learning and well-being found that student frustration around the pressure they feel to complete what they perceive to be meaningless assignments was a key variable that helped explain why 95% of 11th and 12th graders had cheated at least once.

In terms of the gradual decrease in cheating rates after high school, studies have found that pressure to achieve high grades (Bowers, 1966; McCabe et al., 1999; Schab, 1991; Strom & Strom, 2007a) and a pressure for time to produce work (Del Carlo & Bodner, 2004; Syer & Shore, 2001; Vowell & Chen, 2004; Strom & Strom, 2007b) were related to cheating at both the high school and college levels. However, Lind (2000) found that whereas German university students in general reported

declining rates of cheating as they aged those studying medicine reported an increase. A key condition of that discipline's learning environment was competitive grading and pressure to meet performance criteria. Rennie and Rutland (2003) also found that increasing assessment pressure from year one to five in Medical School in Scotland correlated to increasing rates of cheating. This high-stakes climate in Medical School seems to be atypical of the general university experience and explains why it is the exception to the pattern of declining rates of cheating at this level. The correlation between age and cheating appears to be a consequence of organizational expectations, with cheating prevalence peaking when schools create competition and emphasize performance outcomes.

Given pressures of high performance demands on the individual, Brandes (1986) found in a study involving 45 elementary schools and 105 high schools in the United States that a significant correlation existed between cheating and high-achieving schools that emphasized grades. Although data showed that the 'A' grade students in the high achieving schools sometimes used particular forms of cheating such as crib notes less frequently than 'A' grade students in low achieving schools, the majority of students in high achieving schools felt more pressure to attain grades and were more likely to engage in a range of cheating behaviors than the students in the low-achieving schools. Another study involving 500 Texas public school districts found that even school administrators were more likely to cheat when their school districts were assigned performance ratings based on student scores on standardized reading and mathematics tests (Bohte & Meier, 2000). Under pressure to meet state standards, the administrators used illegitimate means such as improperly excluding weaker students from the tests. Similarly, a Chicago public schools study estimated that thousands of instances existed each year in which teachers and administrators

cheated in the standardized testing process (Jacob & Levitt, 2003), concluding that the incentive for school staff to cheat was the school being placed on probation for failing to meet testing standards the previous year. Recently, the Governor of Georgia announced the results from a state investigation of school misconduct, finding that teachers and principals in 44 of the 56 public schools examined had cheated by falsifying student test scores (State of Georgia, 2011). The investigators identified pressure to meet performance targets as the primary cause of the misconduct. Educators themselves appear more likely to cheat when they are expected to achieve organizational performance goals.

Apparently people distinguish between the legitimacy of cheating in performance and mastery environments. Murdock, Miller, and Kohlhardt (2004) tested this hypothesis using a sample of 204 American high school students and found that the students were more likely to externalize responsibility and blame the teacher for cheating when they perceived that a teacher had poor teaching skills and expected students to meet performance goals. By including an additional morality variable, the study also showed that the students who rated cheating as more justifiable with teachers who emphasized performance over mastery did not however rate cheating as more morally acceptable in one or the other situation. Similarly, an investigation involving 248 students at four Moscow institutes (Poltorak, 1995) found that the most common reason students gave for their high rate of cheating (83.9% reported cheating at least once) was the perception that the learning activities were uninteresting and meaningless. By eliciting students' perceptions of what constitutes cheating, the study was able to conclude that students knew what they were doing was wrong but believed their behavior was acceptable as a means of 'survival' in what they perceived to be a pointless educational system.

A logical conclusion is that organizational expectations can motivate people to strive for a cultural definition of success without being restrained by the moral norms that should govern the attainment of that success; Merton (1938) called this situation an illegitimacy adjustment. While a lack of clear rules could account for instances of unintentional misconduct, an illegitimacy adjustment prompted by a scramble for grades could account for deliberate instances of cheating. A review of the literature on purpose as it relates to organizational goal expectations supports the posing of the hypothesis that when it comes to cheating the end may justify the means. This study applied the concept of *purpose* to cheating as the goal that a teacher establishes for a learning activity, involving a communication to students that emphasizes one of two purposes: a) performance expectation or b) mastery expectation.

The Rationale for an Alternative Approach to Cheating

An organizational systems approach to addressing academic cheating can help school leaders conceptualize the school as an organization that apparently needs to better manage the communication of expectations for student learning activities. The fundamental question guiding this study is: Do organizational conditions foster cheating in schools? Systems theorists (e.g., Ackoff, 1971; Argyris, 1957; Forrester, 1968; Parsons, 1956; Weick, 1976) contend that an organizational system is inherently complex. Yet two key social conditions define meaning for people in an organization: what rules govern the operation of the system and what is their purpose. Grounded in the environmental perspective, a systems approach provides an alternative theory for investigating a phenomenon that likely has roots in the social context of schooling.

Role in School. A major problem with cheating is that people do not appear to interpret cheating situations in the same way or agree on legitimate ways to apply rules in the attainment of grades. However, a review of the literature suggests that no study to date concerning cheating has gathered data from students, teachers, and parents. Systems theory conceptualizes these key groups as the prime components of the learning environment with separate roles but forming a cycle of mutual influence (Senge, Cambron-McCabe, Lucas, Smith, Dutton, & Kleiner, 2000). A school should ideally have these groups working together under similar understandings to support organizational goals but evidence suggests that they do not with cheating. Studies that compared student and teacher data (e.g., Hard et al., 2006; Lambert et al., 2003; Schmelkin, Gilbert, Spencer, Pincus, & Silva, 2008) found that significant differences existed between group attitudes about the definitions, levels, and seriousness of cheating. For example, teachers generally perceive cheating situations as more serious than students. Whereas students may believe that cheating is less serious and justified in some situations teachers expect students to follow rules regardless of the situation.

What parents believe is largely unknown. Information from teachers indicates that parents have not historically agreed with teachers about expectations for academic honesty, at times resisting teacher efforts to hold students accountable for improper conduct. For example, Taylor (2003) described a case in which a teacher punished students for plagiarism by giving them a grade of zero. This action by the teacher angered parents, who confronted school officials. The school board ordered the teacher to award partial credit for the assignment, and the teacher subsequently resigned. Strom and Strom (2007b) reported that 70% of the teachers polled did not punish students whom they caught cheating because of fear about parental reaction. In addition, 20% of students in one study reported submitting work done by their parents

(McCabe, 2001). Whereas educational researchers and theorists (e.g., Strom & Strom, 2007b; Weissbourd, 2009) have recommended drawing parents into partnerships with schools to create a unified message about behavioral expectations for students, high school parents appear to define their own expectations and create additional stress for children to attain the grades that will get them into college. Schab's (1991) study cited "parents demanding good grades" as one of the top five reasons high school students give for cheating. Parents likely hold a unique perspective on how much outside help students should be allowed in their work.

Students, teachers, and parents have not historically contributed to the development of academic honesty policies, yet these groups appear to have developed their own definitions for cheating. Organizational systems theorists (e.g., Owens, 1991; Senge, 1990) hold that pesky school problems are often rooted in people's underlying attitudes and beliefs. Gallant's (2007) recent qualitative study involving interviews of students, faculty, administrators, and staff at an American liberal arts college found that underlying assumptions about cheating affect integrity culture change. In concluding, she calls for more research to examine possible differences in beliefs about cheating both within and between groups. A key question in a systems approach to the causes of cheating asks whether differences exist among school community members about what people believe constitutes cheating. Hence *role in school* was the final independent variable in the present study. Role was defined according to group membership: a) student, b) teacher, or c) parent. In sum, this study asked students, teachers, as well as parents to judge what they believe constituted cheating under the conditions of rule clarity and purpose. The hypothesis was that differences would exist between group perceptions of what constituted cheating.

Operational Definition of Academic Cheating: Collaborative Cheating

For the purpose of this study, academic cheating was operationally defined as a person's judgment that students have engaged in cheating behavior in a collaborative learning situation. Many forms of cheating behavior and types of potential cheating situations exist, yet one of the most problematic situations in schools leading to one of the most common forms of cheating is the collaborative activity. On one hand, student collaboration with peers, also called group work or cooperative learning, can improve student achievement and learning (Hattie, 2009; Johnson & Johnson, 1999; Johnson, Johnson, & Stanne, 2000; Kinsler, 1990). Collaboration is a recommended and increasingly popular teaching practice (Fisher & Frey, 2008; Wagner, 2008). The National Council of Teachers of English (2008) identified collaborative problem-solving as one of the six essential skills that 21st Century readers and writers require. On the other hand, student collaboration has clear dangers as evidenced by data showing unauthorized student collaboration as a major form of cheating. The CCSU study (2004) found this particular form of cheating to have the highest mean score of 16 misconduct behaviors. Similarly, Bisping et al. (2008) found it to be the second most common of the 31 types of misconduct they tested. McCabe et al.'s (2001) meta-analysis showed a rise in this form of cheating from 11% in 1963 to 49% in 1995. Collaborative cheating is now one of the most prevalent forms of academic cheating. This study investigated collaborative cheating in particular and did not try to generalize findings to cheating as a general student behavior.

A lack of understanding around ground-rules for appropriate collaboration may help explain why it is particularly problematic for students. For example, West, Ravenscroft, and Shrader (2004) found that many of the students who had cheated by

working together on a take-home test explained that they collaborated on the task because they had been encouraged by the teacher to work together and help one another with take-home work throughout the duration of the course. Rabi et al. (2006) found that whereas over 50% of a 296-student sample reported having worked on a take-home individual exam with a friend only 16.3% of the same sample reported having cheated. McCabe and Trevino (1996) reported that 25% of students do not understand how collaborative cheating is cheating at all. Schulman (1998) concluded that the effect of collaboration is a gray area for students. Rotherham and Willingham (2009) explained why, observing that schools have not trained teachers how to teach effective collaboration. Teachers often place students in groups without using techniques to clearly communicate expectations. The line between what is appropriate collaborative work and what is cheating may not be clear to students.

Little is known about the factors leading to student rule-breaking behaviors in collaborative learning situations. Many students may simply want to avoid looking bad when it comes to collaboration (Summers, 2006). Managing group work, especially situations where students are responsible for their peers, is difficult for teachers to do well (Fisher & Frey, 2008). Teachers who establish performance expectations for students in collaborative situations may heighten the pressure that students feel to perform by making them responsible for peers' grades and asking them to contribute equally to an assignment without equal ability levels to do so. Slavin (1984) found in his review of the research on cooperative learning that two forms of cooperative student work existed: a cooperative incentive structure with group members dependent on one another for a reward such as a grade or a cooperative task structure with students coordinating their efforts to complete a task. The performance incentive structure exerted a significantly greater effect on student

achievement. However, the size of the effect varied according to whether the teacher assessed student performance with an individual or group reward. According to Slavin, there are three methods available to teachers for assessing student work in a cooperative incentive structure: a) *'group study/group reward for individual learning'* involving students separately assessed for their own work with group scores summed for a shared group grade; b) *'group study/group reward for group product'* involving students assessed for one piece of group work and sharing the same grade; c) *'group study/individual reward'* involving students working together but individually assessed for their own work. No study has investigated whether these three incentive structures exert different effects on student behavior in potential cheating situations. Slavin identified the *'group study/individual reward'* method as the one most commonly practiced in school, hence this study used it to define a credible collaborative performance scenario.

Few studies have asked students to assess whether cheating has occurred in an imagined academic situation in which they have been placed. Identifying people's perceptions about how they would behave in a specific scenario under specific conditions can help researchers to better understand how people actually make sense and construct reality in complex organizations, such as schools (Senge et al., 2000). Whereas asking students to self-report cheating behavior is a commonly used technique, methods that measure people's perceptions are critical in a systems analysis of cheating because perceptions offer insight into the way people in school interpret the rules and experience the pressure of the current system of education. Anderson (1982) found in her review of the research that perceptual data was in fact a more important indicator of school climate than actual behavior. This study investigated perceptions by asking students, teachers, and parents in one international

high school to respond to hypothetical collaborative learning scenarios. Hypothetical scenarios have proven useful for investigating ethical decision-making in general (Flannery & May, 2000; Robertson & Ross, 1995) and cheating dilemmas in particular (Austin et al., 2006; Bisping et al., 2008; Bruggeman & Hart, 1996; Carter, 1929; Lambert et al., 2003; Murdock et al., 2004; Ogilby, 1995; Rabi et al., 2006; Rennie & Rutland, 2003; Sierra & Hyman, 2006). Data concerning a judgment about potential cheating is important given that moral judgment "cuts across cognition, attitudes, and behavior" (Rest, Thoma, & Edwards, 1997, p. 21). By devising original collaborative scenarios and asking people at different levels and with different roles in school to rate the extent to which they judged academic cheating to have occurred in a given scenario, this study was able to shed new light on the underlying causes of the problem.

Research Questions

The present study tested the application of an organizational systems approach to academic cheating by presenting different potential cheating scenarios to different sets of school community members (students, teachers, and parents) in order to determine whether the scenarios elicited a distribution of responses. For each set separately, the design was based on three variables that were derived from an organizational approach to investigating the issue:

i) 3 levels of *rule clarity*: clear/unclear/no rules from the teacher;

ii) 2 levels of *purpose*: performance/mastery goal orientation;

iii) 3 levels of *grade level* in high school: grades 7-8/9-10/11-12 (except for teachers given their small numbers in the school).

The primary research question asked: For each set of school community members (students, teachers, and parents), is there a relationship between conditions of rule clarity, the purpose of a learning activity, and judgments of whether academic cheating occurred in a collaborative learning situation?

The following questions were posed for each independent variable with each set of school community members:

a) Is there a relationship between rule clarity in a collaborative learning situation and the judgments of whether academic cheating occurred?

b) Is there a relationship between the purpose of a collaborative learning activity and the judgments of whether academic cheating occurred?

c) Is there a relationship between grade level in school (7-8/9-10/11-12) and the judgments of whether academic cheating occurred (except for teachers)?

d) Are there interactions among the variables of rule clarity and purpose and the judgments of whether academic cheating occurred?

Definition of Terms

- Academic cheating—a person's judgment that students have engaged in inappropriate behavior in the process of completing a collaborative learning task.
- College—level of education involving students who have earned a high school diploma and are working toward the completion of an undergraduate degree.
- Elementary school—level of education including grade 5 (in the American system) and below with children generally under the age of 11.
- Grade level—label using the sequential K-12 American enrollment system to identify a student's academic year of study.

- High school—level of education including grades 9, 10, 11, and 12 (in the American system) with students in the general age range of 15-18.
- Middle school—level of education including grades 6, 7, and 8 (in the American system) with students in the general age range of 11-14.
- Parent—biological parent, foster parent, or legal guardian of a child.
- Purpose—the goal that a teacher establishes for a learning activity, involving a communication to students that stresses the importance of either a performance outcome or the mastery of skills.
- Role in school—status in school community as a student, parent, or teacher.
- Rule clarity—the extent to which a teacher effectively communicates to students the rule expectations for the completion of a learning task.
- Student—person enrolled in any level of school on a full-time basis.
- Student collaboration—an academic learning situation involving students working together on a group activity and then separately completing and earning a grade for their performance on an individual task related to the group activity.
- Teacher—adult employed by a school on either a full or part-time basis to work with students in the classroom to support student learning, either in the role of primary instructor or in collaboration with the primary instructor.

CHAPTER TWO

Methods

The Setting

The study was conducted at the International School of Kenya (ISK), a non-profit foundation co-owned by the governments of the United States of America and Canada, and operated by a director under the supervision of a board of directors. ISK is located on a fifty-acre campus on the outskirts of Nairobi and serves children from approximately ninety different countries. Parents are primarily Americans, Western expatriates, or Kenyans who work for embassies, the United Nations, non-governmental organizations, or multinational businesses. Accredited through agencies in both America and Europe, ISK aims to prepare pre-kindergarten to grade 12 students either for a smooth transition to schools around the world or for further studies at the college level. ISK offers an academic program that culminates in an American high school diploma and the International Baccalaureate (IB) diploma. The graduation rate is consistently in the 90-100% range, with over 50% of graduates earning both an ISK-American and an IB diploma.

The Investigator

The investigator of the study was a full-time teacher at ISK. His contractual responsibilities included teaching two classes of high school English and coordinating the school's IB program. He was also a class advisor and the chairperson of the school-wide professional development (PD) committee. Given these responsibilities, the investigator was paid a teacher's salary according to ISK's teacher pay scale and earned separate stipends for his responsibilities as IB coordinator, class advisor, and PD chairperson. He assisted IB teachers and coordinated IB faculty meetings but did

not supervise or evaluate IB teachers and was not a member of the school's administrative team. As with all other high school teachers at ISK, the high school principal supervised and evaluated his performance. He was a parent to three children in the school who were in grades nine, seven, and five.

Sample Population

ISK's grade 7-12 students, teachers, and parents were the population under investigation. The investigator invited this entire population to participate in the study. The sample included those who voluntarily agreed to participate. Using a volunteer sampling method limited the investigator's ability to generalize findings to other school settings and to the population at large. However, the investigator hoped to maximize return rate and statistical power. Furthermore, a case sample was necessary to develop an understanding of how cheating operates within an organizational system. The student, teacher, and parent groups were treated independently and no attempt was made to match a student response to those of his parents or teachers.

Students. The school's total student population was 765 pupils. The specific students under investigation were the 412 boys and girls enrolled full-time in grades 7-12. These students were divided into three groups according to whether they were in the *grade level* range 7-8, 9-10, or 11-12. The exact number of students in each grade level range was 124 in grades 7-8, 133 in grades 9-10, and 155 in grades 11-12. Due to absences from class meetings and advisories on the day that the surveys were administered, the maximum possible student sample size on the day was 379. Seventy-six students returned completed surveys (one student returned a survey uncompleted). Forty-five students reported being at the school for 1-3 years, 14 for 4-

6 years, 9 for 7-9 years, and 5 for 10 years or longer (three students did not report this information). Table 1 summarizes the sample population information for the student, parent, and teacher groups.

Table 1
Sample Population Information for All Participants Reported by Group (*n* = 221)

Group	Female	Male	Total
Students	43	32	76
Grades 7-8			33
Grades 9-10			21
Grades 11-12			21
Teachers	32	14	46
Parents	59	40	99
Grades 7-8			36
Grades 9-10			37
Grades 11-12			57

Note. One student did not report grade level or gender information. The investigator did not ask teachers to report on grade level, as the population was small and teachers at the school typically taught at more than one grade level. Twenty-nine parents reported children at two different grade levels and one parent reported children at all three grade levels.

Teachers. The school employed a total of 89 pre-kindergarten to grade 12 teachers representing twelve different nationalities. Eighty-one teachers worked at the school on a full-time basis. The most common teacher nationalities were as follows: 42 Americans, 14 Kenyans, 13 Canadians, 8 British, and 4 French. The teacher population in the study included the 55 full-time and part-time educators at the school who taught students in the grade 7-12 range. Several teachers had administrative duties, responsibilities supporting students with special needs, or teaching duties in other grades; however, they were considered middle and high school faculty members from the school's perspective because they were employed under the terms of a teacher's contract, worked with students in the classroom setting, and were supervised by either the middle or high school principal. Of the 55 possible teacher participants,

46 teachers chose to participate. Twenty-four reported being employed at the school for 1-3 years, 5 for 4-6 years, 10 for 7-9 years, and 7 for 10 years or longer.

Parents. The parent sample included the parents or legal guardians for the grade 7-12 student population. Both parents of a student could choose to participate. They were separately invited and randomly assigned to scenarios according to their separate email addresses. The parent email addresses were obtained from an existing school database that contained a total of 484 parent email addresses. Of the 484 emails distributed to parents, only 427 reached their destination. Fifty-seven were returned with an error message. A total of 99 parents chose to complete a survey (five parents who accessed a survey did not complete it). Fifty-three reported being at the school for 1-3 years, 27 for 4-6 years, 14 for 7-9 years, and 5 for 10 years or longer. Twenty-three parents reported a child in grade 6 or below and 33 reported a child who had already graduated.

Experimental Scenarios

A basic hypothetical scenario contained a four-sentence description of a collaborative learning situation for students. One to three sentences were added to the scenario to produce six different versions of the scenario. The six versions were based upon combinations of three types of *rule clarity* and two types of *purpose*. Following Kohlberg's (1966) recommendation, the fictitious scenarios were intended to be morally real and challenging situations.

The basic scenario was as follows:

> Students are assigned a group project. The teacher tells the class that each group must work together to learn about the topic, but that each student needs to hand in his own final paper. [**The *rule clarity* condition and *purpose* condition was inserted here].** One group of four students decides that the most sensible approach is to divide the

> topic into four parts. Members of the group complete one of the four parts at home, meet before school, copy the work from each other, and then hand in their individual papers.

Independent Variable: Rule Clarity. Using Brown and Howell's (2001) three-level approach, one to two sentences was added to the basic scenario in order to create three conditions under which the rules for a collaborative task are communicated to students: a) *high rule clarity*, b) *low rule clarity*, or c) *no rules communicated*. The *high rule clarity* condition included an explicit one-sentence statement attributed to a teacher as follows: "The teacher tells the students that the final paper should be their own work and distributes an assignment sheet that states that copying information from a group member is not allowed." The *low rule clarity* version included the following ambiguous teacher instruction: "The teacher tells the students that the final paper should be their own work but does not provide any further guidelines nor distributes an assignment sheet." The *no rules communicated* condition read: "The teacher does not provide any further guidelines nor distributes an assignment sheet."

Independent Variable: Purpose. Based upon Anderman et al. (1998), the investigator also added a sentence to the basic scenario that reflected one of two types of purpose established by the teacher for a school learning activity: a) performance oriented expectation or b) mastery oriented expectation. The performance expectation sentence reflected the condition of a teacher using a grade incentive and asking students to compete against one another for a reward. Using the '*group study/individual reward'* situation that Slavin (1984) identified as the most common cooperative performance structure, student group members were expected to work together but were separately assessed for their individual work. The performance sentence was as follows: "The teacher explains to the class that each student's final paper is going to count for 50% of the grade for the semester and the best four

students will get extra credit points." By contrast, the mastery expectation statement reflected the condition of a teacher asking students to try hard and do creative work for the purpose of mastering important skills. It read: "The teacher explains to the class that students will be given individual feedback on the assignment but no grade will be given because the purpose of the project is to help students learn how to work as an effective team, develop creative solutions to problems, and apply research skills." Appendix A provides the complete text of the six scenarios.

Instrument

The rating instrument consisted of three sections. Under the instrument's first heading entitled, "A Little Background Information," participants were instructed to provide some demographic data about themselves before they rated a scenario. Given that the relationship between student age and the prevalence of cheating behaviors appears to be curvilinear, students were asked to supply their grade level (7-8, 9-10, or 11-12) and parents supplied the grade level of their children. Given that researchers (e.g., Anderman & Midgley, 2004; Haines et al., 1986) have refuted and continue to debate Bowers' (1966) claim that a correlation existed between students' gender and cheating behaviors, all participants supplied their gender. Students, parents, and teachers also reported their number of years at the school (1-3, 4-6, 7-9, or 10 years or more). Parents stated whether or not they had another child below grade 7 or a child who had already graduated.

Under a second heading entitled, "The Survey," participants were instructed to judge whether or not cheating had occurred in their assigned scenario using a five-point Likert-scale. The specific direction asked the participant to, "Rate whether you think cheating has occurred in the scenario by circling a number 1 through 5," with 1

representing strongly disagree, 2 representing disagree, 3 representing uncertain, 4 representing agree, and five representing strongly agree. After rating the scenario, the participants were asked to, "Please identify the factor(s) that contributed most to your decision by ticking AT LEAST ONE of the comments below. If a factor that contributed to your decision is not provided, please tick next to 'Other' and write your own brief comment in the space provided." Based on the open-ended narrative feedback obtained during the pilot study, participants were offered six 'button box' options, as follows: "The teacher provided clear rules and the students chose not to follow the rules"; "The teacher's rules were unclear and the students attempted the task within the rules"; "The teacher did not provide any rules and the students had to devise their own rules"; "The teacher stressed the importance of learning skills and the students did not learn the skills"; "The teacher stressed the importance of grades and the students found a way to get good grades"; "Other". A comment box was provided for those participants who selected "Other", ensuring that all participants had the opportunity to explain the thinking behind their rating decision. Appendix B presents the paper-and-pen survey for students, as well as the text for the online versions of the survey for parents and teachers.

Validity and Instrument Testing

An expert panel made up of three experienced international school leaders reviewed the instrument to determine the following: 1) whether or not the basic scenario described a credible collaborative learning activity; 2) whether or not the different versions of the basic scenario sufficiently differed along the rule clarity and purpose dimensions; and 3) whether or not the format would ensure that people's rating decisions reflected their intentions. The school leaders were selected as

practitioner experts who had experience with many kinds of cheating situations, including instances when variables within the school system may have played a role in the rule-breaking situation. They had ongoing administrative responsibility for managing rule-breaking situations and applying consequences for cheating behaviors in their schools. The panel had one female and two male members. The scenarios were modified after the process of expert review.

After this initial review, the instrument was piloted with students and teachers at a separate international school in Nairobi. The pilot school and ISK were both accredited by the Council of International Schools, were members of the same local private-school sports league, and had students from similar socio-economic backgrounds, although the fees were lower, the student body was less culturally diverse, and the academic terminology used was more common to the British system at the pilot school. In order to reduce potential confusion for participants in the pilot study, some of the survey's terminology was modified. For example, the word "semester" was changed to "term." The professional staff at the pilot school completed the survey instrument online using *SurveyMonkey*. The researcher asked the director of the school to email the survey link to staff members who were teaching grades 7-12. Teachers who clicked on the link were first asked to provide their consent to participate. Those who provided consent rated a scenario. Their responses were not linked to personally identifiable information. A mixed-gender group of 24 students was recruited and completed a pen-and paper survey during a period of time similar to homeroom called 'citizenship' period. Students in grades 11 and 12 were unavailable for the pilot study on account of their involvement in examinations. Students whose parents had provided consent were excused from their citizenship session and reported to a separate room. They simultaneously completed the survey.

Students were allowed to withdraw from the pilot study at any time. None elected to withdraw and 24 unspoiled surveys were collected. The director of the pilot school helped in the recruitment and consent processes for students. The investigator conducted the student pilot experiment.

Procedures for Data-Gathering

Participants within their school community group (student grade 7-8, 9-10, 11-12, teacher, or parent) were randomly assigned in approximately equal sample sizes to one of the six versions of the survey instrument. Teachers were the first group sampled and completed the survey online using *SurveyMonkey*. The investigator used his supervisor's, Dr. Yoshida's, *SurveyMonkey* account instead of ISK's own *SurveyMonkey* account in order to ensure the confidentiality of the data. Only the investigator and Dr. Yoshida had access to the account that reports survey data anonymously by omitting personally identifiable information such as email addresses from its database. The investigator asked ISK's director to email teachers the link to the survey using the school's email server. The investigator also asked the director to re-email teachers their allocated link as a reminder, so that teachers who may have been too busy but wanted to participate still could. Each teacher who clicked on the link was connected to a page headed, "Some Information about the Study & Informed Consent." Teachers who provided voluntary consent were allocated a survey to complete. Their submissions had no identification numbers or personal e-mail addresses attached to them.

Students were the second group sampled and completed a pen-and-paper version of the instrument after getting a parent's permission to participate. All students who wished to participate were taken through the informed consent process.

This informed consent process was two weeks in duration, providing adequate time for students to discuss participation with parents, for both students and parents to ask the investigator any possible questions, for a parent to provide a signature of consent, for a student to provide a signature of assent, and for letters of consent to be returned. The letters of consent were distributed to the grade 7-8 students during 'advisory' homeroom session. The middle school students who returned signed consent forms completed the surveys all at once during an advisory session two weeks later. A similar procedure was followed for the grade 9-12 high school students, who were given consent forms during a 'class meeting' session. Class meetings involved grade level groups gathering in separate rooms to conduct various business related to their grade under the supervision of two student leaders and two teaching staff advisors. The high school students who returned signed consent forms completed the surveys all at once during the same class meeting time two weeks later. The use of the advisory and class meeting settings was designed to lead to a higher survey return rate than if students were sampled in their free time, without asking students to give up social time to participate. Using this time instead of formal classroom time and ensuring that no school markings appeared on the consent letter or its accompanying envelope was intended to reduce the pressure some students may have felt to participate because they perceived the survey as required schoolwork.

The investigator was absent from the room during the informed consent process for students, using teacher surrogates to further ensure that participation was voluntary. The teacher surrogates also administered the student instrument that took less than ten minutes to complete. The surrogates were the middle school advisory teachers for the grade 7-8 sample and the class meeting teacher advisors for the grade 9-12 sample. The investigator provided training for these teacher helpers who were

given verbal directions to follow as well as a procedural instruction sheet. On the day of the survey, the teacher helpers gave every student in the room an identical-looking envelope. A small tear-away piece of paper bearing each individual student's name was stapled to the corner of each envelope. The teacher helper instructed all students to open their envelopes and follow the directions inside. Students who provided consent found a survey on the A4 paper enclosed in the envelope. All directions were written on the survey instrument including the following instruction so that students knew what to do when they were done with the survey: "When you are done, place this paper in the envelope provided, seal the envelope, and leave the envelope in the box at the front of the room. **Be sure to tear off the tag of paper bearing your name** before putting the envelope in the box. Thank you." The investigator instructed the teacher helpers not to answer any questions about the scenarios once the surveys had been opened, but to direct students who were confused to tear off the slip of paper bearing their name and place their sealed envelopes in the box at the front of the room. Each room was allocated separate unmarked, identical boxes. A student could withdraw from the study at any time.

An alternative activity was prepared for students who chose not to participate in order to minimize any potential discomfort felt by these students. In line with a similar procedure used in Phillips' (1994) survey of teenagers on the sensitive topic of teen sex, students who chose not to participate found an A4 paper in their envelope that looked like the survey paper but had the following statement instead: "If you would like, please feel free to draw or doodle on this paper. Otherwise, simply replace this paper in the envelope provided, seal the envelope, and leave the envelope in the box at the front of the room. **Be sure to tear off the tag of paper bearing your name** before putting the envelope in the box. Thank you." It is very unlikely that the teacher

helper or another student in the room was able to determine whether or not a student had done the survey or the alternative activity. The 'doodle' papers collected from non-participants were destroyed.

Parents were the last group surveyed and followed the same procedures as teachers, using *SurveyMonkey*. When the student sampling was done, the investigator asked the director of the school to email the survey to parents using the school's email server. Parents who provided consent were allocated a survey to complete. If both parents were willing to participate, they could separately complete the survey through their separate email addresses.

The investigator believed that the potential risk for harm to the human subjects participating in the experiment was minimal. ISK's director approved the study, its procedures, and the use of its students, parents, and teachers as participants. All participants were taken through the process of informed consent. The purpose of the study, procedures involved, and the fact that the school director had endorsed the study was openly shared with participants. The student consent form requested both parent permission and student assent because the vast majority of student participants were under the age of eighteen. Appendix C presents the letter of consent for students. As the consent process for parents and teachers happened through the *SurveyMonkey* link, the informed consent information for these groups of adults was included with their surveys. All three groups of participants were required to provide consent before completing a survey.

Data Analysis

Quantitative. A separate study for each group (students, teachers, and parents) was conducted to analyze the rating data collected from the scenarios (survey item 1).

Numeric value labels were used for the purpose of data entry into the database and statistical analysis. Each of the 221 participants was assigned a unique identity number (2-222) and one of three values according to their group membership: student = 1; teacher = 2; parent = 3. Each participant was then assigned a value that defined the specific scenario to which they had been assigned: 1 = high rule clarity/high performance expectation; 2 = low rule clarity/high performance expectation; 3 = no rules/high performance expectation; 4 = high rule clarity/high mastery expectation; 5 = low rule clarity/high mastery expectation; 6 = no rules/high mastery expectation. Finally, Each participant's 1-5 Likert-scale rating was entered.

Independent 3 X 2 analyses of variance (ANOVAs) involving three types of *rule clarity* and two types of *purpose* were conducted for the student, teacher, and parent data sets. Appendix D presents the descriptive statistics for each group's rating responses to the six scenario conditions. *Post hoc* procedures and follow-up interaction analyses were necessary for the teacher ANOVA. The Tukey Honestly Significant Difference (HSD) test, separate Kruskal-Wallis nonparametric tests for pairwise combinations, and follow-up Mann-Whitney tests that applied the Bonferroni approach to control for Type I errors were used. In the end, the results of the three studies were compared without a statistical procedure in order to produce observations about whether or not differences existed between the groups.

Qualitative. The second part of the experiment (survey item 2) asked participants to provide a reason for their 1-5 rating decision (survey item 1). Participants had the option to select from five close-ended button-box contributing factors and/or choose 'Other' and write in their own open-ended comment. The investigator, an educator with nearly twenty years of experience in high schools and

over ten years of experience at the international school in which the study took place, used a content analysis methodology to interpret the responses. A form of document analysis, content analysis is broadly defined as the systematic categorization of the content of text data from which valid inferences can be drawn and theory derived (Hsieh & Shannon, 2005; Kassarjian, 1977; Patton, 2002). Given that the purpose of survey item two was to understand how participants made meaning in a potential cheating scenario, the present study used a conceptual approach to content analysis with theme as the central unit of analysis.

The process of developing a theme-based classification system began with a description of participants' button-box choices. Table 2 shows that the 221 total participants (students, teachers, and parents) selected option 1 most frequently and the other options in the following descending order of frequency: 2, 6, 4, 5, and 3. Option 2 was the most frequent choice for teachers though options 1 and 6 were nearly the same for that group.

Table 2
Frequency of Participants' Button-box Selections (*n* = 221)

Button-box reason selected	Students	Teachers	Parents	Total
1. The teacher provided clear rules and the students chose not to follow the rules.	35	17	42	94
2. The teacher's rules were unclear and the students attempted the task within the rules.	16	19	27	62
6. Other	19	16	24	59
4. The teacher stressed the importance of learning skills and the students did not learn the skills.	13	3	13	29
5. The teacher stressed the importance of grades and the students found a way to get good grades.	12	3	12	27
3. The teacher did not provide any rules and the students had to devise their own rules.	4	4	5	13

Note. 171 participants selected a single one of the six button-box options available to them and 50 selected two or more of the options for a total of 284 responses.

Options 1 through 5 provided pre-defined thematic categories; however, the content of the open-ended 'Other' comments made as part of option 6 had to be identified, coded, categorized, classified, and labeled (Patton, 2002). Appendix E presents all of the option 6 comments (n = 59) that were corrected for spelling errors using Microsoft's *Spelling* function.

No one method exists for inducing themes from text though immersion in the text through reading and highlighting of key words is a recommended part of the process (Hsieh & Shannon, 2005; Ryan & Bernard, 2003). Key words that appeared in the comments made as part of the 'Other' category were highlighted, run through Microsoft's *Find* function, and grouped with similar words. Three clusters were found: a) share/copy/individual/divide/team/group/cooperative/together/own work; b) rules/criteria/guidelines/instructions; and c) skills/grades/learn/creative solutions. Each word grouping appeared to share a conceptual relationship with the present study's independent or dependent variables and was assigned a preliminary coding title and label: *student collaboration* (6S); *rule clarity* (6R); and *purpose* (6P). However, further coding procedures were necessary to identify exactly what new ideas were being communicated about the variables through the comments.

Applying Ryan and Bernard's (2003) techniques of re-reading for key word meaning in context and sorting broad ideas into sub-thematic categories, the three preliminary coding categories were divided according to whether or not comments were reporting that cheating occurred. The comments on *student collaboration* judged that either a) The students copied work, did not write their own paper, and cheated (6Scw); or b) The students' decision to divide the task and share the work was within reason and understandable given the situation (6Sda). The comments on *rule clarity* judged that either a) The teacher's rules should have been clearer but the students

copied, neither learning skills nor earning a grade (6Rlc); or b) The students did not understand the rules (6Rnc). The comments on *purpose* judged that either a) The teacher said the task would not be graded, so the students cheated because they could not fail (6Puc); or b) The teacher stressed team skills and creative solutions instead of grades, so the students' actions were understandable (6Pmn).

The next step determined whether or not all the ideas communicated through the 'Other' comments were represented in the list of six sub-thematic categories. Another reading of the comments found that new categories could be developed without redundancy. A small number of participants had used words such as "ingenious" and "brilliant" to describe the students' approach to the task, while others questioned the appropriateness of the task. Both ideas did not appear to fit an existing sub-category, and were assigned separate codes (6Sdb and 6Saf). A small number of participants also commented on *school policy*, a stand-alone idea that was also allocated its own code (6Spa). A single comment on the nature of extra credit work was treated as a deviant case and omitted from the list.

In order to establish that the emergent categories could be consistently applied to the thematic coding of all the 'Other' comments, the middle and high school principals at the school from which the sample was drawn were asked to independently rate a randomly selected sample of twenty comments. The principals were chosen for this procedure as informed observers who had primary responsibility for the educational experience of the specific population under investigation. They had significant experience interpreting and managing student rule-breaking behaviors such as academic dishonesty. They were in key positions that gave them the background to understand and interpret the specific utterances of the students,

teachers, and parents involved in the study. They held doctorates, one in Psychology and the other in Educational Leadership.

The codebook supplied to the principals contained codes, main themes, sub-themes, examples, and the following set of instructions:

> *Instructions*: Participants in my study on academic cheating rated whether they thought cheating had occurred in a hypothetical student collaborative learning situation by ticking a number 1 though 5 (1 = Strongly disagree; 2 = Disagree; 3 = Uncertain; 4 = Agree; 5 = Strongly agree). They then selected from five pre-set options and/or wrote in their own 'Other' comment to explain the factor in the scenario that contributed most to their rating decision. Fifty-nine people chose to write their own comment. A sample of twenty comments is attached. Use the codes below to identify the idea that you think is being communicated through each comment. The participant's rating is next to each comment to help you interpret the meaning. Use one code per comment. Thank you.

After separately rating the sample of twenty comments, the principals met with the investigator and reported their ratings. They initially agreed on eleven of the twenty items. Using techniques recommended by MacQueen, McLellan, Kay, and Milstein (1998), the investigator reviewed the nine items in dispute with the principals. A check for coder error led to immediate agreement on three further items. A discussion of one comment that did not seem to fit any category led to agreement that the comment was about the researcher's lack of clarity in devising the scenario, hence it was treated as a deviant case and removed from the analysis. The next step involved a revision of the inclusion criteria for the categories under the *rule clarity* theme, resulting in agreement on three additional comments. Finally, the principals agreed that the two remaining items in dispute fit one of the revised *rule clarity* categories, making the '6Saf' category redundant. The principals came to agreement and successfully coded 100% of the twenty comments in the sample.

The final codebook (Appendix F) included all changes made during the code review process with the principals and was used to code all of the 'Other' comments. Table 3 lists the eight sub-thematic categories derived from the coding process and their frequency of observation in the text.

Table 3
Categories Derived from the 'Other' Comments (Option 6) Sorted by Theme and the Number of Observations

Theme	Sub-theme	Code	Code definition	Number
Student collaboration	Copying as wrong	6Scw	The students copied work, did not write their own paper, and cheated.	18
	Task division understandable	6Sda	The students' decision to divide the task and share the work was within reason and understandable given the situation.	6
	Task division brilliant	6Sdb	The students' decision to divide the task was an ingenious, highly intelligent approach.	4
Rule clarity	Low rule clarity but still copying	6Rlc	The teacher's rules should have been clearer but the students copied, neither learning skills nor earning a grade.	16
	Low rule clarity and confusion	6Rnc	The students did not understand the rules.	1
Purpose	Not graded so cheating	6Puc	The teacher said the task would not be graded, so the students cheated because they could not fail.	2
	Mastery emphasis and not graded so not cheating	6Pmn	The teacher stressed team skills and creative solutions instead of grades, so the students' actions were understandable.	6
School policy	Academic honesty policy awareness	6Spa	The students should have known the school's academic honesty policy, regardless of the teacher's rules and expectations.	3

Finally, the eight categories derived from the 'Other' comments and the five pre-existing button-box categories were combined into a classification system of thirteen variables that participants reported had contributed to their decision-making in survey item one. These thirteen categories were used to classify the 284 total responses to survey item two except for the three irrelevant responses. The results of the classification are reported in Chapter Three.

CHAPTER THREE

Results of Survey Item One

Separate 3 x 2 (*rule clarity* x *purpose*) analyses of variance were conducted for each of the three data sets (students, teachers, parents) for survey item one.

Experiment 1 (Students)

Regarding the answer to the first, second, and fourth research sub-questions, the student ANOVA found that the clarity of the rules, the purpose of the learning activity, and the interaction between the variables did not have a significant effect on student perceptions of academic cheating. Table 4 summarizes the results of the ANOVA for student responses for the *rule clarity* variable, $F(2,70) = .55$, *ns*, for the *purpose* variable, $F(1,70) = 2.72$, *ns*, as well as for the interaction between the variables, $F(2,70) = .20$, *ns*.

Table 4
ANOVA Summary for Experiment 1 (*n* = 76)

	Type III Sum of Squares	df	Mean Square	F
Rule Clarity	1.19	2	0.60	0.55
Purpose	2.94	1	2.94	2.72
Interaction	0.43	2	0.21	0.20
Total	1068.00	76		

Regarding the third research sub-question, the modest number of student responses (*n* = 76) precluded a statistical test of the null hypothesis concerning student *grade level* differences. However, *grade level* (7-8, 9-10, 11-12) means and standard deviations were calculated because students self-identified membership in one grade level only. Appendix G presents these *grade level* mean ratings and standard deviations.

Experiment 2 (Teachers)

The teacher ANOVA (Table 5) found a significant, large effect for the *rule clarity* variable, $F(2,40) = 5.51$, $p < .01$, but not for the *purpose* variable, $F(1,40) = .18$, *ns*. An interaction effect was found, $F(2,40) = 3.30$, $p < .05$, indicating a greater *rule clarity* effect in one *purpose* condition than the other. Hence, the null hypotheses for the first and fourth research sub-questions could be rejected.

Table 5
ANOVA Summary for Experiment 2 ($n = 46$)

	Type III Sum of Squares	df	Mean Square	F
Rule Clarity	12.15	2	6.07	5.51**
Purpose	0.20	1	0.20	0.18
Interaction	7.29	2	3.64	3.30*
Total	566.00	46		

* $p < .05$. ** $p < .01$.

The Tukey test of *post hoc* differences between means (Table 6) showed that the significant result from the ANOVA was due to the mean teacher ratings of the *high rule clarity* condition being significantly higher than the mean teacher ratings of the *no rules* condition ($p < .01$). Follow-up interaction analyses found that this effect occurred within the *mastery* condition ($p < .05$) and not the *performance* condition.

Table 6
Tukey HSD Comparison for the Teacher Sample

				95% CI	
		Mean Diff (I-J)	Std. Error	Lower Bound	Upper Bound
High Clarity	Low Clarity	0.60	.38	-0.33	1.53
	No Rules**	1.25	.38	0.33	2.16
Low Clarity	High Clarity	-0.60	.38	-1.53	0.33
	No Rules	0.65	.38	-0.27	1.56
No Rules	High Clarity**	-1.25	.38	-2.16	-0.33
	Low Clarity	-0.65	.38	-1.56	0.27

** $p < .01$

However, the frequency distributions for the teacher data set had lower than standard sampling sizes and did not meet the assumption of normality, making further

procedures necessary. The Kruskal-Wallis nonparametric tests found a significant *rule clarity* measure, $H(2) = 8.61$, $p < .05$, and a non-significant *purpose* measure, $H(1) = 0.08$, *ns*. The test for an interaction found a significant difference between at least two of the fifteen possible combinations of conditions, $H(5) = 13.99$, $p < .05$. The Mann-Whitney tests identified the specific conditions that differed. The three tests for *rule clarity* were in the expected direction and yielded one significant difference, between the *high clarity* and *no rules* treatments for teachers, $U = 53.00$, $z = -2.76$, $p < .01$. The fifteen interaction tests also found one single significant difference, between the *high rule clarity/mastery* and *no rules/mastery* scenarios in the expected direction, $U = 6.00$, $z = -3.02$, $p < .01$. Appendix H presents the ranks for the two significant test results. Overall, results showed that the change in the clarity of the rules had caused teachers to change their perception of cheating. Specifically, teachers were more likely to judge that cheating had occurred in a mastery situation with clear rules than in a mastery situation with no rules.

Experiment 3 (Parents)

The parent ANOVA (Table 7) found no main effect for the *rule clarity* variable, $F(2,93) = .92$, *ns*, but a significant, medium-size effect for *purpose* on parent ratings, $F(1,93) = 4.50$, $p < .05$. No interaction was found between the variables, $F(2,93) = .29$, *ns*. *Post hoc* tests were not necessary for the parent data set. The *purpose* variable had only two levels and the performance parent ratings ($M = 3.8$, $SD = 1.05$) were significantly higher that the mastery parent ratings ($M = 3.3$, $SD = 1.02$). The null hypothesis for the second research sub-question, the change in the purpose of the collaborative learning activity and parent perceptions of what constituted cheating, was rejected.

Table 7
ANOVA Summary for Experiment 3 (n = 99)

	Type III Sum of Squares	df	Mean Square	F
Rule Clarity	2.01	2	1.00	0.92
Purpose	4.93	1	4.93	4.50*
Interaction	0.63	2	0.31	0.29
Total	1397.00	99		

* $p < .05$.

Regarding sub-question three, the modest participation rate for parents (n = 99) combined with a high number of parents reporting either children in more than one grade level (n = 31) or a child graduate (n = 33) made a *grade level* analysis impossible.

Summary of Survey Item One Findings

Primary Research Question: Given that each experiment produced different results, group membership appeared to determine whether the organizational systems variables affected people's judgment of what constitutes cheating.

Sub-question 1: A positive relationship was found between the rule clarity of a task and teacher (but not student and parent) perceptions of what constitutes cheating.

Sub-question 2: A positive relationship was found between the purpose of a task and parent (but not student and teacher) perceptions of what constitutes cheating.

Sub-question 3: Grade level was excluded from the ANOVA procedures.

Sub-question 4: Rule clarity and purpose interacted to affect teacher (but not student and parent) judgments of what constitutes cheating.

Results of Survey Item Two

In survey item one, participants rated whether or not they thought cheating occurred in the scenario. In item two, participants provided a reason for their ratings.

The content analysis of all useable responses of students, teachers, and parents to item two (n = 281) found that four main issues accounted for rating decisions: a) *rule clarity* (n = 186), b) *purpose* (n = 64), c) *student collaboration* (n = 28), and d) *school policy* (n = 3). Each response was classified under the issues into one of thirteen sub-thematic categories. Appendix I provides a detailed description of each category. Table 8 presents the thirteen categories by issue and presents the percentage of observations within each category for each group out of the total number of responses from each group.

Table 8
Percentage Within Group of Reason Given for Ratings on Item One Sorted by Issue (n = 281)

Issue/Category	S (n = 99)	T (n = 60)	P (n = 122)
Rule Clarity (n = 186)			
Clear rules not followed (n = 94)	35.4	28.3	34.4
Unclear rules students tried to follow (n = 62)	16.2	31.7	22.1
Low rule clarity but still copying (n = 16)	1.0	6.7	9.0
No rules to follow (n = 13)	4.0	6.7	4.1
Low rule clarity and confusion (n = 1)	1.0	0.0	0.0
Purpose (n = 64)			
Mastery emphasis (n = 29)	13.1	5.0	10.7
Performance emphasis (n = 27)	12.1	5.0	9.8
Mastery emphasis and not graded so not cheating (n = 6)	2.0	3.3	1.6
Not graded so cheating (n = 2)	2.0	0.0	0.0
Student Collaboration (n = 28)			
Copying as wrong (n = 18)	10.1	5.0	4.1
Task division understandable (n = 6)	3.0	0.0	2.4
Task division brilliant (n = 4)	0.0	3.3	1.6
School Policy (n = 3)			
Academic honesty policy awareness (n = 3)	0.0	5.0	0.0

Note. S = student responses; T = teacher responses; P = parent responses.

Research Sub-Question One: *Rule Clarity*

The results presented a generally bimodal picture of the relationship between *rule clarity* and judgments of cheating. Of the 281 useable item two responses, 186 were classified according to one of the five *rule clarity* categories. Over fifty percent of all responses within each group were assigned to two of these categories: *clear rules not followed* and *unclear rules students tried to follow*. The set of participants who rated item one as cheating occurring consistently used the *clear rules not followed* category to explain that the students cheated by not following explicit instructions. In the 51 instances when participants strongly agreed, this reason was stated 30 times.

The set of participants who did not agree that cheating occurred in item one consistently used the *unclear rules students tried to follow* category to explain that the students made a reasonable attempt to complete the task within the rules. In the 50 instances when participants disagreed or strongly disagreed that cheating occurred, this reason was stated 29 times. This reason was also given in 22 of the 31 instances of uncertain ratings in item one. Additional responses that accounted for eight ratings of disagreement were assigned to the *no rules to follow* category. Overall, participants who were uncertain or disagreed that cheating occurred consistently reported that the lack of clear rules accounted for their judgment whereas those who agreed that cheating occurred consistently reported that the presence of clear rules accounted for their judgment.

A notable exception to this pattern was observed among comments assigned to the *low rule clarity but still copying* category that accounted for several ratings of agreement that cheating had occurred. For example, one participant stated:

> There were not clear expectations from the teacher or clear rules. However, the idea of 'own work' was presented by the teacher and clearly not followed by the group of students.

These respondents reported that unclear rules did not justify inappropriate student behaviors.

Research Sub-Question Two: *Purpose*

The 64 responses classified in the four *purpose* categories were also assigned primarily to two categories: *mastery emphasis* and *performance emphasis*. Of the 29 comments assigned to the *mastery* category, 27 agreed in item one that the students cheated by circumventing learning goals. This category was the second most frequently observed reason given by participants who agreed that cheating occurred.

However, ratings from the 27 participants who were assigned to the *performance* category were more evenly distributed: 6 strongly agreed, 10 agreed, 6 were uncertain, and 6 disagreed that cheating occurred. Several other participants who made comments categorized as *mastery emphasis and not graded so not cheating* reported that the students' actions were understandable because the teacher stressed skills instead of grades. For example, one stated, "As no grades were to be assigned the focus was on teambuilding and finding creative solutions by applying research skills." Two comments categorized as *not graded so cheating* reported that cheating occurred because the task was not graded. For example, "The teacher said it wasn't for a grade so they cheated cause they couldn't fail." The issue of grade incentives seemed to account for some uniformity in rating judgments, although this was the case mostly for students and parents given the limited number of teacher responses.

Other Emergent Issues: *Student Collaboration* and *School Policy*

Differences in opinion regarding what constitutes appropriate student sharing in a collaborative task accounted for some variation in item one ratings. Of the 28 responses classified in a *student collaboration* category, 18 were assigned to the *copying as wrong* category. These respondents consistently agreed that the students cheated by inappropriately sharing work with group members. One stated, "'The teacher tells the students that the final paper should be their <u>own</u> work' – row 3. It is a known fact that copying is cheating." Others who disagreed that cheating occurred made comments as part of the *task division understandable* and *task division brilliant* categories. The first category captured comments from a few students and parents who thought that the students' approach to sharing the workload was reasonable, as illustrated by the comment, "The students did as the teacher said and worked together." The second category included unexpected comments from two teachers and two parents who reported that the students demonstrated an ingenious, highly intelligent approach to sharing. For example, one teacher who strongly disagreed that cheating occurred discussed the particular complexity of group work as follows:

> None of the above. The teacher could have given a written assignment sheet and been explicit. But, bottom line, that doesn't matter. The students demonstrated intelligent behavior, and followed a pattern that is very common in group work in law schools, engineering schools, where there simply isn't enough time for a student to do all the assignments -- you have to work in a team and share or you do very poorly (unless you're an absolute genius). They came up with a good solution to the question: How can we do this most efficiently? Usually groups hand in one report, but since the teacher did ask for a paper from each, then "copying" does the trick. "Copy" isn't always a negative term! Also, having each student do one-fourth is a lot better than having one student do it all, which can happen in "group" work.

A comment about *student collaboration* was made in three of the seven instances when participants strongly disagreed that cheating occurred in the scenario.

Finally, three comments were assigned to an *academic honesty policy awareness* category. The teachers who made these comments were not in agreement

about whether cheating occurred but reasoned that school policies could diminish cheating by establishing expectations that students could apply to any classroom situation. The comment, “If students have a clear understanding of the school's policy on academic honesty, this should not occur even without an explicit assignment sheet,” was typical of the communication made about the issue of *school policy*.

CHAPTER FOUR

Discussion

A Systems Perspective on the Causes of Cheating

The present study found that the student, teacher, and parent groups shared some common understandings about cheating. These groups broadly agreed that a line existed between appropriate and inappropriate student behavior. Most respondents also agreed that the location of the line was not fixed and largely depended on the nature of the teacher's rule communication. The overwhelming majority of those who were uncertain or disagreed that cheating occurred reported that an absence of clear rules accounted for their judgments whereas a clear majority of those who agreed that cheating occurred reported that the presence of clear rules accounted for their judgments. This bimodal distribution of responses lends support to the specific theory that practices and policies that clarify expectations can influence academic cheating attitudes (Brown & Howell, 2001; McCabe et al., 1999).

However, some respondents within each group of students, teachers, and parents were uncertain about whether their specific scenarios represented cheating. It appears that a teacher's lack of rule clarity can blur the line between appropriate and inappropriate student behavior. Studies on cheating often have categorized students as either cheaters or non-cheaters (Daniel et al., 1991; Diekhoff et al., 1996; Haines et al., 1986; Pulvers & Diekhoff, 1999; Vandehey et al., 2007). Given the results of this study, three possible outcomes likely exist in a potential cheating situation: a) academic honesty, b) academic dishonesty, or c) an uncertain, gray area. Lacking information about students' intentions, some participants simply could not determine whether or not cheating had occurred when they perceived a situation without clear rules.

By asking people to imagine a scenario involving students reacting to three levels of a teacher's rule clarity, this study found that students who were characterized as doing honest work under certain conditions were not certain to avoid having their behaviors defined as cheating. This finding constituted a gray area of interpreting student intentions and behaviors. The limited literature on unintended cheating suggests that some student behaviors defined as cheating in schools may not actually be instances of students deliberately trying to circumvent rules (Lambert et al., 2003; Nadelson, 2007). Although this study focused on perceptions of cheating instead of actual behaviors, the organizational issue of poorly communicated expectations may well account for instances of misattributed cheating and merits further investigation.

However, the bigger story from a social systems perspective is that important differences in perceptions of cheating were found depending upon the respondent group. The *rule clarity* variable had a statistically significant effect only for the teacher group and not for students or parents. Specifically, a significant difference in mean ratings on perceptions of what constituted cheating was found between the *high clarity* and *no rules* treatments for teachers. Three-quarters of all teachers offered follow-up comments concerning the *rule clarity* variable whereas a more modest percentage of students and parents offered an explanation concerning the rules for their ratings. As the only group to choose, "The teacher's rules were unclear and the students attempted the task within the rules," category more frequently than any of the other twelve reasons, the teachers seemed particularly sensitive to the negative impact that unclear or no rules conditions can have on the formation of student behaviors such as unintended cheating and the possible outcome of misattributed cheating.

The finding that the school community groups were not equally affected by the clarity of the rules was not surprising in light of studies that explored group

membership differences. Several investigators (Hard et al., 2006; Lambert et al., 2003; Schmelkin et al., 2008) have found differences in teacher and student attitudes about cheating. In this study, the teachers provided the fewest number of uncertain ratings and perceived a gray area less frequently than students and parents. They mostly looked to the nature of the rule communication in order to deal with uncertainty. Hence teacher attributions of cheating largely came down to one of two interpretations of the student behaviors: clear rules meant that students were to blame for behaviors that appeared to be cheating whereas unclear or no rules meant the teacher was to blame. Parents were somewhat less certain than teachers about how to deal with rule ambiguity and whom to blame for behaviors under such conditions.

Whereas teachers seemed to focus on the quality of the rules to help them draw the line between appropriate and inappropriate student behaviors, results showed that parents paid more attention to the goal orientation of the activity. The *purpose* sub-question was found to be statistically significant only for parents who were more likely to judge that cheating occurred in a performance situation than a mastery situation regardless of the rules. The parent group seemed to perceive that performance incentives raised the stakes for students and acted as a motivator for deliberate rule-breaking behaviors. This finding was unexpected in light of previous studies that have concluded that people are more likely to justify cheating in a performance-oriented environment (Anderman et al., 1998; Murdock et al., 2004). Instead of judging performance incentives as a justifiable excuse for the behaviors in the scenario, the parents attributed cheating to students trying to attain extrinsic rewards. In sum, parents appeared to perceive performance incentives as a cause of intentional cheating but not a justifiable one.

The follow-up reasons given by respondents offered insight into the particular complexity of performance incentives. The specific issue of grades appeared to raise doubt among participants within every respondent group about the students' intentions, accounting for clear disagreement about whether the situation constituted cheating or not. But when grade incentives were removed from the learning situation and an emphasis was placed on the mastery of skills, participants consistently reported that the students cheated by deliberately attempting to circumvent learning goals. The mastery category was the second most frequently observed reason given by participants who agreed that cheating occurred. The fourth research sub-question concerning the interaction of the independent variables showed that teachers were specifically more likely to judge that cheating had occurred in a mastery situation with clear rules than in a mastery situation with no rules. Thus, the conditions of a mastery environment seemed to create even more clarity for teachers as they drew the line between appropriate and inappropriate student behavior. Without grades, the gray area around student intentions seemed to disappear. This finding is consistent with other studies that have shown that high performance demands exert pressures on individuals to cheat (Bowers, 1966; McCabe et al., 1999; Lind, 2000, Rennie & Rutland, 2003; Schab, 1991; Strom & Strom, 2007a) and justifies further investigations of the relationship between organizational learning goals and cheating.

The main story then is that the teacher and parent groups held markedly different attitudes about cheating raising concern about the possibility that students receive mixed messages about academic expectations. However, what did students report and why did the independent variables have a non-significant statistical effect on them as a sample group? The follow-up reasons given by students showed that they were the most likely of the three groups to apply an understanding of general

expectations for appropriate conduct in school to the specific learning scenario. Students provided the majority of the "Copying as wrong" responses, including statements such as, "It is a known fact that copying is cheating." An environment that communicates a clear message to students about generally acceptable versus unacceptable behaviors such as copying apparently helps some students to deal with ambiguity and make honest choices in a range of learning situations (Adams et al., 2001; McCabe et al., 1999; McCabe et al., 2001).

So is it possible that most students in the study simply agreed where the line was between appropriate and inappropriate behavior? This interpretation is unlikely because student follow-up responses were dispersed. Students also provided numerous uncertain ratings. Furthermore, the student mean ratings for the six scenarios were nearly the same for grades 7 and 8 but appeared to be generally lower and more widely distributed for grades 11 and 12. This descriptive data raises the possibility that the older student-participants were generally less critical of the behavior in the scenario and more responsive to the organizational variables than the younger student-participants. Perhaps the older students were more alert to the school-level forces at work because they had spent more time in school and had more experience with such factors. The possibility of a curvilinear relationship between student age and cheating would be consistent with Miller et al.'s (2007) conclusion but requires further investigation.

The reasons given for judging whether cheating occurred indicated that student collaboration on a project can be a complex learning situation leading to a range of interpretations of the same student behaviors regardless of the rule clarity or purpose conditions. Some participants judged the situation as blatant copying and obvious cheating while others judged it as brilliant teamwork, highlighting the

particular complexity of managing expectations for group tasks. The nature of group study appeared to complicate the process of trying to draw the line between academic honesty and cheating. This finding raises concern given the literature that identifies cooperative learning as a recommended and widespread practice in today's classrooms (Johnson et al., 2000; Fisher & Frey, 2008; The National Council of Teachers of English, 2008; Wagner, 2008). Collaborative situations may heighten the pressure for students to engage in inappropriate behaviors by giving them responsibility for the performance and grade of their peers (Fisher & Frey), making the management of desired outcomes particularly difficult in cooperative learning situations. Additionally, if student behavior in groups is open to a range of interpretations leading to a potential gray area (McCabe & Trevino, 1996; Schulman, 1998), providing explicit instructions about acceptable ways to complete work seems particularly important for group projects.

Limitations and Future Directions

This study used an experimental design with an open-ended follow-up question to triangulate findings. Nonetheless, the sample was drawn from a single international school involving a volunteer sample of a modest size, thus limiting the generalizability of the findings. The cultural diversity of an international school community raises a specific question about whether cultural background may influence perceptions of cheating. Replicating the study in multiple international school settings will offer an opportunity to investigate whether or not differences exist between people's cultural backgrounds and their attitudes about cheating.

Both the *rule clarity* and *purpose* variables appeared to share an important relationship with cheating. The teacher ANOVA found that these organizational

variables interacted to affect teacher judgments of cheating and the complex issue of grades requires further study. A logical next step from an organizational perspective involves adding other institutional variables such as consequences into the picture. For example, the present study considered incentives yet what about perceptions of the negative consequences of cheating? Specifically, do organizational responses to academic cheating behaviors interact with organizational expectations for academic honesty to affect people's attitudes and behaviors about cheating? The holistic nature of this and some similar studies (Murdock et al., 2004) lends credence to the development of more complex models for understanding the problem of cheating.

The finding that the three groups held some differing views about cheating was derived in part from a description of the three separate ANOVA test results, not a statistical comparison of the three data sets. Similarly, inspection of the student grade-level means indicated that some differences may have been found but they could not be verified with a test because of the small samples by grade-level. Thus, the relationship between student age and cheating remains tenuous though worthy of further study. The present study was unable to offer any new insight into the relationship between gender and cheating so this matter also remains open to debate. Future studies should consider using the study's treatment conditions and instrument with larger samples.

Cheating has myriad forms. The present study examined one type of cheating behavior, collaborative cheating, as part of the dependent variable. Inappropriate collaboration is now one of the most common forms of cheating (Bisping et al., 2008; CCSU, 2004; McCabe et al., 2001). In addition, finding that cooperative learning is a particularly complicated situation leading to pressure on students attempting to manage the line between appropriate and inappropriate behaviors indicates that this

issue also merits further investigation. However, the process of experimentally defining cheating involved the exclusion of other situations in which cheating may occur. Whereas the copying that took place in the group situation might well apply to other potential cheating forms such as copying from an Internet document, student collaboration is a specific form of learning activity that has characteristics that may make it different from Internet copying and the many other forms of cheating that exist. Conducting an experimental study using a scenario involving another form of cheating would help to address this issue.

Practical Implications

Research suggesting that cheating is a widespread problem in schools (CCSU, 2004; Conner et al., 2009; Hard et al., 2006; Schab, 1991; Vowell & Chen, 2004) might lead practitioners to fear that schools are failing to help students prepare for effective participation in society. Findings from the present study suggest that schools may not be witnessing an epidemic of failing student morals but a social systems challenge involving some blurring of the line between right and wrong. Educators should continue to hold students accountable for rule-breaking behaviors and help them to learn correct behaviors in all types of situations. At the same time, school leaders should ensure that systems are in place that build consensus around understanding the appropriate behaviors in school and beyond as a logical step in attempting to mitigate the problem.

A few comments from teacher-participants proposed the implementation of policies that clarify school-wide expectations. But do written policies ensure that community members read, understand, and know how to apply the policies in all situations? The fact that neither students nor parents raised the issue of school policy

in this study may indicate that they are unaware of these expectations or they lack confidence in a general policy's ability to influence cheating behaviors. Regardless of the reasons, school professionals are faced with the challenge of developing clear expectations, communicating them throughout the community, and helping students follow them. Steps beyond handbooks and organizational policy-making are needed to foster a consistent message for students. Drawing parents into a dialogue about academic honesty, engaging students in discussions of hypothetical cheating dilemmas, and asking faculty to engage in professional practices that clarify expectations would be a reasonable next step for school leaders trying to promote conversation about academic expectations and address unintentional instances of cheating.

Finally, school leaders want students to learn and master skills. So why do schools place a systematic emphasis on performance? Many studies have found that performance pressure contributes to the prevalence of both student cheating (Bowers, 1966; McCabe et al., 1999; Schab, 1991; Strom & Strom, 2007a) and educator cheating (Bohte & Meier, 2000; Jacob & Levitt, 2003). This study did not find a clear correlation between academic cheating and goal expectations. Nonetheless, many participants reported on the goal of the activity when accounting for their judgment of whether the students had cheated and the *purpose* variable was a source of clear disagreement among teachers and parents. Educational researchers and theorists (e.g., Strom & Strom, 2007b; Weissbourd, 2009) highlight the importance of having parents partnering with schools to create a unified message for students. However, the teacher and parent groups in this study held differing opinions about the *purpose* variable and the way in which it influenced student behaviors. A strong teacher-parent partnership may be recommended but the evidence from this study suggests that such a

partnership does not exist when it comes to perceptions of the relationship between the goal of academic activities and academic honesty. School leaders need to consider that communicating the rules for learning and asking students to follow them does not ensure that all community members understand and are in agreement about the purpose of educational activities. The creation of a school culture where people buy into the ground-rules for learning seems to require that learning itself is a topic of ongoing conversation.

Conclusion

Academic cheating exists and is undiminished despite half a century of intense scrutiny of the topic. New forms of cheating continue to emerge. School leaders might be tempted to see the problem as insurmountable. However, a systems approach (Owens, 1991; Senge, 1990) to investigating the underlying, school-level variables that contribute to cheating (Anderman et al., 1998; Gallant, 2007; Gallant & Drinan, 2006) offers a fresh perspective. A next step for school leaders is to address the hidden causes of some cheating behaviors and attitudes by building consensus around the rules and closing the apparent gap between the larger aim of schooling and the perceived purpose of everyday learning activities. Findings from the present study raise the question whether it is really reasonable for school leaders to expect a captive audience of students to play by the rules for academic honesty without helping them, their parents, and their teachers to fully understand what the rules are or what the point is in playing by them.

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Appendix A
Master Scenario Instrument

Scenario 1: high rule clarity/high performance expectation condition

Students are assigned a group project. The teacher tells the class that each group must work together to learn about the topic, but that each student needs to hand in his own final paper. **The teacher tells the students that the final paper should be their own work and distributes an assignment sheet that states that copying information from a group member is not allowed. The teacher explains to the class that each student's final paper is going to count for 50% of the grade for the semester and the best four students will get extra credit points.** One group of four students decides that the most sensible approach is to divide the topic into four parts. Members of the group complete one of the four parts at home, meet before school, copy the work from each other, and then hand in their individual papers.

Scenario 2: low rule clarity/high performance expectation condition

Students are assigned a group project. The teacher tells the class that each group must work together to learn about the topic, but that each student needs to hand in his own final paper. **The teacher tells the students that the final paper should be their own work but does not provide any further guidelines nor distributes an assignment sheet. The teacher explains to the class that each student's final paper is going to count for 50% of the grade for the semester and the best four students will get extra credit points.** One group of four students decides that the most sensible approach is to divide the topic into four parts. Members of the group complete one of the four parts at home, meet before school, copy the work from each other, and then hand in their individual papers.

Scenario 3: no rules stated/high performance expectation condition

Students are assigned a group project. The teacher tells the class that each group must work together to learn about the topic, but that each student needs to hand in his own final paper**. The teacher does not provide any further guidelines nor distributes an assignment sheet. The teacher explains to the class that each student's final paper is going to count for 50% of the grade for the semester and the best four students will get extra credit points.** One group of four students decides that the most sensible approach is to divide the topic into four parts. Members of the group complete one of the four parts at home, meet before school, copy the work from each other, and then hand in their individual papers.

Scenario 4: high rule clarity/high mastery expectation condition

Students are assigned a group project. The teacher tells the class that each group must work together to learn about the topic, but that each student needs to hand in his own final paper. **The teacher tells the students that the final paper should be their own work and distributes an assignment sheet that states that copying information from a group member is not allowed. The teacher explains to the class that students will be given individual feedback on the assignment but no grade will be given because the purpose of the project is to help students learn how to work as an effective team, develop creative solutions to problems, and apply research skills.** One group of four students decides that the most sensible approach is to divide the topic into four parts. Members of the group complete one of the four parts at home, meet before school, copy the work from each other, and then hand in their individual papers.

Scenario 5: low rule clarity/high mastery expectation condition

Students are assigned a group project. The teacher tells the class that each group must work together to learn about the topic, but that each student needs to hand in his own final paper. **The teacher tells the students that the final paper should be their own work but does not provide any further guidelines nor distributes an assignment sheet. The teacher explains to the class that students will be given individual feedback on the assignment but no grade will be given because the purpose of the project is to help students learn how to work as an effective team, develop creative solutions to problems, and apply research skills.** One group of four students decides that the most sensible approach is to divide the topic into four parts. Members of the group complete one of the four parts at home, meet before school, copy the work from each other, and then hand in their individual papers.

Scenario 6: no rules stated/high mastery expectation condition

Students are assigned a group project. The teacher tells the class that each group must work together to learn about the topic, but that each student needs to hand in his own final paper**. The teacher does not provide any further guidelines nor distributes an assignment sheet. The teacher explains to the class that students will be given individual feedback on the assignment but no grade will be given because the purpose of the project is to help students learn how to work as an effective team, develop creative solutions to problems, and apply research skills.** One group of four students decides that the most sensible approach is to divide the topic into four parts. Members of the group complete one of the four parts at home, meet before school, copy the work from each other, and then hand in their individual papers.

Appendix B
Survey Instruments

Student Pen-and-Paper Survey

A Little Background Information

What grade are you in?

- ☐ 7 or 8
- ☐ 9 or 10
- ☐ 11 or 12

What gender are you?

- ☐ Female
- ☐ Male

How many years have you been a student at the International School of Kenya?

- ☐ 1-3 years
- ☐ 4-6 years
- ☐ 7-9 years
- ☐ 10 years or more

The Survey

Directions: *Rate whether you think cheating has occurred in the scenario by circling a number 1 through 5*.

[One of the six scenarios was inserted here]

The students have cheated.

1	2	3	4	5
Strongly disagree	Disagree	Uncertain	Agree	Strongly agree

Please identify the factor(s) that contributed most to your decision by ticking <u>at least one</u> of the comments below. If a factor that contributed to your decision is not provided, please tick next to 'Other' and write your own brief comment in the space provided:

- ☐ The teacher provided clear rules and the students chose not to follow the rules.
- ☐ The teacher's rules were unclear and the students attempted the task within the rules.
- ☐ The teacher did not provide any rules and the students had to devise their own rules.
- ☐ The teacher stressed the importance of learning skills and the students did not learn the skills.
- ☐ The teacher stressed the importance of grades and the students found a way to get good grades.
- ☐ Other

_____

_____

When you are done, place this paper in the envelope provided, seal the envelope, and leave the envelope in the box at the front of the room. ***Be sure to tear off the tag of paper bearing your name*** *before putting the envelope in the box. Thank you.*

SurveyMonkey online Parent Survey

(Page 1)

Some Information about the Study & Informed Consent

Dear Parent,

I am requesting your agreement to participate in my dissertation study on academic cheating. The study is part of a doctoral degree through Lehigh University's Department of Education. The study aims to help educators better understand how the climate of schooling may contribute to the problem of academic cheating. I am conducting this study at ISK in order to find out what different people in a school think about cheating; neither I nor the administration believe that cheating is any more or less of a problem here than at other schools. The Director of ISK, Mr. Roberts, has approved the distribution of the survey to you. The study is being conducted under the supervision of Dr. Ron Yoshida of Lehigh University. I appreciate your time and help in completing the survey.

Sincerely,
Robert Blanchard

If you agree to participate, you will be asked to read a short fictitious scenario and rate on a scale of 1 to 5 whether or not you think the description of the students' behavior is cheating. You will then comment on the factor(s) in the scenario that contributed to your decision. The survey should take about 5 minutes to complete.

Your decision whether or not to participate in this study is voluntary. You will not receive any payment or compensation. You can withdraw at any time. The records will be kept confidential and anonymous. I am using Dr Yoshida's *SurveyMonkey* account, so only he and I will have access to the data. The *SurveyMonkey* database does not reveal any personally identifiable information such as an email address. It will not be possible for anyone to personally identify you in the published dissertation or any other report that may be published.

I do not foresee any risk resulting from your participation in the study. You will not receive any direct benefit from participating in the study, though your participation may help schools to better manage school-level factors that can lead to academic cheating.

You are encouraged to contact me at any time should you have questions. I can be reached at 0733-401619 or by email rblanchard@isk.ac.ke or rbb205@lehigh.edu. My supervisor, Dr. Yoshida, can be reached at Lehigh University (telephone +1-610-758-6249 or email rky2@lehigh.edu). You can also contact Ruth Tallman or Susan Disidore (telephone +1-610-758-3021 or email inors@lehigh.edu) of Lehigh University's Office of Research and Sponsored Programs. Your correspondence will be kept confidential.

If you agree to participate, please press the "Next" button. Thank you.

(Page 2)

A Little Background Information

What is your gender?
Female ____ or Male ____

What grade is your child in (check as many as apply)?
7 or 8 ____ 9 or 10 ____ 11 or 12 ____

Do you have another child in grade 6 or below?

Yes ____ or No ____

Do you have another child who has already graduated?
Yes: ____ or No ____

How many years have you been a parent at the International School of Kenya?
1-3 years ____ 4-6 years ____ 7-9 years ____ 10 years or more ____

(Page 3)
The Survey
Directions: Rate whether you think cheating has occurred in the scenario by ticking a number 1 though 5.

[One of the six scenarios was inserted here]

The students have cheated.

1 Strongly disagree
2 Disagree
3 Uncertain
4 Agree
5 Strongly agree

Please identify the factor(s) that contributed most to your decision by ticking AT LEAST ONE of the comments below. If a factor that contributed to your decision is not provided, please tick next to 'Other' and write your own brief comment in the space provided:

☐ The teacher provided clear rules and the students chose not to follow the rules.
☐ The teacher's rules were unclear and the students attempted the task within the rules.
☐ The teacher did not provide any rules and the students had to devise their own rules.
☐ The teacher stressed the importance of learning skills and the students did not learn the skills.
☐ The teacher stressed the importance of grades and the students found a way to get good grades.
☐ Other

_____

Press the 'Done' button when you are finished. Thank you.

SurveyMonkey online Teacher Survey

(Page 1)
Some Information about the Study & Informed Consent

Dear Colleague,
I am requesting your agreement to participate in my dissertation study on academic cheating. The study is part of a doctoral degree through Lehigh University's Department of Education. The study aims to help educators better understand how the climate of schooling may contribute to the problem of academic cheating. The Director Mr. Roberts has approved the distribution of the survey to you. The study is being conducted under the supervision of Dr. Ron Yoshida of Lehigh University. I appreciate your time and help in completing the survey.

Sincerely,
Robert Blanchard

If you agree to participate, you will be asked to read a short fictitious scenario and rate on a scale of 1 to 5 whether or not you think the description of the students' behavior is cheating. You will then comment on the factor(s) in the scenario that contributed to your decision. The survey should take about 5 minutes to complete.

Your decision whether or not to participate in this study is voluntary. You will not receive any payment or compensation. You can withdraw at any time. The records will be kept confidential and anonymous. I am using Dr Yoshida's *SurveyMonkey* account, so only he and I will have access to the data. The *SurveyMonkey* database does not reveal any personally identifiable information such as an email address. It will not be possible for anyone to personally identify you in the published dissertation or any other report that may be published.

I do not foresee any risk resulting from your participation in the study. You will not receive any direct benefit from participating in the study, though your participation may help schools to better manage the school-level factors that can lead to academic cheating.

You are encouraged to contact me at any time should you have questions. I can be reached at 0733-401619 or by email rblanchard@isk.ac.ke or rbb205@lehigh.edu. My supervisor, Dr. Yoshida, can be reached at Lehigh University (telephone +1-610-758-6249 or email rky2@lehigh.edu). You can also contact Ruth Tallman or Susan Disidore (telephone +1-610-758-3021 or email inors@lehigh.edu) of Lehigh University's Office of Research and Sponsored Programs. Your correspondence will be kept confidential.

If you agree to participate, please press the "Next" button. Thank you.

(Page 2)
A Little Background Information

What is your gender?
Female ____ or Male ____

How many years have you been teaching at the International School of Kenya?
1-3 years ____ 4-6 years ____ 7-9 years ____ 10 years or more ____

(Page 3)
The Survey

Directions: Rate whether you think cheating has occurred in the scenario by ticking a number 1 though 5.

[One of the six scenarios was inserted here]

The students have cheated.

1 Strongly disagree
2 Disagree
3 Uncertain
4 Agree
5 Strongly agree

Please identify the factor(s) that contributed most to your decision by ticking AT LEAST ONE of the comments below. If a factor that contributed to your decision is not provided, please tick next to 'Other' and write your own brief comment in the space provided:

☐ The teacher provided clear rules and the students chose not to follow the rules.
☐ The teacher's rules were unclear and the students attempted the task within the rules.
☐ The teacher did not provide any rules and the students had to devise their own rules.
☐ The teacher stressed the importance of learning skills and the students did not learn the skills.
☐ The teacher stressed the importance of grades and the students found a way to get good grades.
☐ Other

_____

Press the 'Done' button when you are finished. Thank you.

Appendix C
Letter of Informed Consent for Students with Parental Permission

Dear ISK Student,
I am requesting your agreement to participate in my dissertation study on academic cheating. The study is part of a doctoral degree through Lehigh University's Department of Education. The study aims to help educators better understand how the climate of schooling may contribute to the problem of academic cheating. The Director of ISK, Mr. Roberts, has approved the distribution of the survey to you. The study is being conducted under the supervision of Dr. Ron Yoshida of Lehigh University. I appreciate your time and help in completing the survey.

Sincerely,
Robert Blanchard

If you agree to participate, you will be asked to read a short fictitious scenario and rate on a scale of 1 to 5 whether or not you think the description of the students' behavior is cheating. You will then comment on the factor(s) in the scenario that contributed to your decision. The survey should take about 5 minutes to complete.

Your decision whether or not to participate in this study is voluntary. You will not receive any payment or compensation. You can withdraw at any time without jeopardizing your relationship with Lehigh University, the school, or myself. The records of this study will be kept confidential and anonymous. Only Dr. Yoshida and I will have access to the information. It will not be possible for anyone to personally identify you in the published dissertation or any other report that may be published.

I do not foresee any risk resulting from your participation in the study. You will not receive any direct benefit from participating in the study, though your participation may help schools to better manage the school-level factors that can lead to academic cheating.

You are encouraged to contact me at any time should you have questions. I can be reached at 0733-401619 or by email rblanchard@isk.ac.ke or rbb205@lehigh.edu. My supervisor, Dr. Yoshida, can be reached at Lehigh University (telephone +1-610-758-6249 or email rky2@lehigh.edu). You can also contact Ruth Tallman or Susan Disidore (telephone +1-610-758-3021 or email inors@lehigh.edu) of Lehigh University's Office of Research and Sponsored Programs. Your correspondence will be kept confidential.

Statement of Assent for Student and Consent for Parent (you will be given a copy of this letter for your records)
To confirm that you have read and understood the above information, have received answers to any questions you asked, and agree to participate in the study, please sign below.

Name of Student Participant: _____

Signature of Student Participant: _____ Date: _____

Signature of Parent or Legal Guardian: _____ Date: _____

Signature of Investigator: _____ Date: _____

Appendix D

Descriptive Statistics for Each ANOVA

Descriptive Statistics for the Student Sample (n = 76)

Rule Clarity Condition	Purpose Condition	Mean	SD	*n*
High Clarity	Performance	3.93	0.73	14
	Mastery	3.58	1.24	12
	Total	3.77	0.99	26
Low Clarity	Performance	3.57	1.16	14
	Mastery	3.33	0.98	12
	Total	3.46	1.07	26
No Rules	Performance	3.91	0.94	11
	Mastery	3.31	1.11	13
	Total	3.58	1.06	24
Total	Performance	3.79	0.95	39
	Mastery	3.41	1.09	37
	Total	3.61	1.03	76

Descriptive Statistics for the Teacher Sample (n = 46)

Rule Clarity Condition	Purpose Condition	Mean	SD	*n*
High Clarity	Performance	4.00	1.55	6
	Mastery	3.89	0.60	9
	Total	3.93	1.03	15
Low Clarity	Performance	3.00	1.00	9
	Mastery	3.83	0.98	6
	Total	3.33	1.05	15
No Rules	Performance	3.25	1.16	8
	Mastery	2.12	0.99	8
	Total	2.69	1.20	16
Total	Performance	3.35	1.23	23
	Mastery	3.26	1.18	23
	Total	3.30	1.19	46

Descriptive Statistics for the Parent Sample (n = 99)

Rule Clarity Condition	Purpose Condition	Mean	SD	*n*
High Clarity	Performance	4.00	1.03	16
	Mastery	3.58	1.08	12
	Total	3.82	1.06	28
Low Clarity	Performance	3.89	0.94	19
	Mastery	3.24	1.09	17
	Total	3.58	1.05	36
No Rules	Performance	3.57	1.16	21
	Mastery	3.29	0.91	14
	Total	3.46	1.07	35
Total	Performance	3.80	1.05	56
	Mastery	3.35	1.02	43

	Total	3.61	1.06	99

Appendix E
Participants' 'Other' Narrative Comments

ID	Rating	'Other' Comment
4	3	Students worked together but used a sort of way cheating by copying others work. They did not learn.
5	3	The student did not fully understand the rules of the project.
13	3	The fact that the teacher assigned them to work together and then write individual papers would most likely make it seem as if they cheated.
17	4	"The teacher tells the students that the final paper should be their own work" – row 3. It is a known fact that copying is cheating.
29	5	The teacher stated that they could only work together to learn about the topic.
31	5	They are copying each other's work.
33	4	I felt like agreeing because each paper separately counts for each individual student's grade. By copying it means that they all get the same grade, and they didn't even have to do ¾ of the work.
36	5	Everyone had to hand in their own final paper and they copied the work of each other.
44	4	The teacher said it wasn't for a grade so they cheated cause they couldn't fail.
46	1	The students did as the teacher said and worked together.
47	4	"Meet before school, copy the work from each other, and then hand in their individual papers."
48	4	The teacher said it would not be graded.
49	2	The teacher never said they couldn't split up the project.
50	2	The teacher told to use team work & work together so the students divided it up as a team and still learned the research skills.
61	4	The students copied work from each other.
70	2	They chose to divide and conquer.
72	4	The students pretty much copied a section of each other's research and handed it in.
74	4	The students didn't hand in their own final paper - they were copied.
75	2	The students used their team skills, involved everyone. Although they only learned one section it was team work.
81	5	The teacher stressed that students must work together to learn about the topic, students did not follow this recommendation as they worked separately and then copied from each other.
85	4	While the teacher did not provide clear expectations and criteria, the school rule of plagiarism would apply as schools have policies and these would have been stated in the student handbook.
86	4	There were not clear expectations from the teacher or clear rules. However, the idea of "own work" was presented by the teacher and clearly not followed by the group of students.
88	2	Assigning "extra credit" to benefit the "best" (even "best" is dubious - What are the criteria?) is rewarding students for comparative achievement. Not cool, since student achievement should be independently assessed without relative weight.
90	4	The teacher did state that each student needed to hand in his own work. While the teacher did not give clear expectations or criteria for the project, almost all schools have plagiarism policies and these need to be enforced.
96	2	If students have a clear understanding of the school's policy on academic

		honesty, this should not occur even without an explicit assignment sheet.
100	4	The teacher did not provide clear rules but had stressed that each student needed to hand in his own final paper. The method they used does not reflect the students' own work but more of a group project.
103	4	The phrase 'copied the work from each other' leaves some room for lack of clarity. Did the students share study notes? Or did they actually copy the text of the final assignment? Study notes would seem close to the teacher's description. But copying the assignment itself is definitely outside of the boundaries of the teacher's instructions. I would prefer to have had more detailed examples of how the students were to help each other learn while avoiding the problem of copying each other's work.
106	3	The teacher said that the purpose was to learn to work as a team and "develop creative solutions to problems." The student who thought of dividing the task into four parts was thinking creatively and each student did his or her own work for the assigned section of the topic. On the other hand, the teacher also said that each student should hand in his OWN final paper. This implies that the WHOLE thing should be original, but that stipulation is not stated directly. I don't think that the students were cheating - just sharing information to get a task done. The teacher should have made clear the types of information-sharing allowed.
110	4	The teacher should have created a rubric for the assignment so that the students would clearly understand the expectations.
111	5	The teacher provided rules. The students were within the letter of the rule but not the spirit. Did the students complete their own work? Yes? In its entirety. No? That was not stated by the teacher. In addition the students met the objectives of the assignment as stated.
114	4	The strategy the students have devised is contrary to the spirit of the assignment, the purpose of which was clearly stated "that the group must work together to learn about the topic," not learn each about one fourth of the topic.
116	2	If one of your goals was for students to find a creative solution to a problem, the group mentioned deserves an A+. The teacher in question cannot assume that his/her understanding of academic honesty is the same as his/her students. The teacher is at fault here if he/she is tempted to call this academic dishonesty, but he/she could use the incident to better educate these four kids on what is and is not 'cheating.'
119	1	None of the above. The teacher could have given a written assignment sheet and been explicit. But, bottom line, that doesn't matter. The students demonstrated intelligent behavior, and followed a pattern that is very common in group work in law schools, engineering schools, where there simply isn't enough time for a student to do all the assignments -- you have to work in a team and share or you do very poorly (unless you're an absolute genius). They came up with a good solution to the question: How can we do this most efficiently? Usually groups hand in one report, but since the teacher did ask for a paper from each, then "copying" does the trick. "Copy" isn't always a negative term! Also, having each student do one-fourth is a lot better than having one student do it all, which can happen in "group" work.
120	4	Although they have an argument that they collaborated as a "team", the fact is they copied work and showed no originality in the individual papers.
123	2	The rules were unclear. The problem is in interpretation. Without clear guidelines, the students may have thought that they were following the guidelines of the project. The students did work as a team, they did develop a solution to the problem and they may have applied research skills. If that is the purpose, they may have succeeded. If the purpose was to learn material, than

		the assignment is too murky and the assessment doesn't match the goal. The teacher telling the group that they must learn about the topic and then later the purpose are not in alignment and I see how these could cause confusion. If this scenario was part of a business model, I would say that the students may have chosen an effective way to develop a solution, work as a team and apply research skills.
124	3	Why would you ask them to work in a group and then everybody has to write an individual paper, the teacher should have explained this.
125	5	In this case, each student final paper would have been either identical, hence they copied form each other, the teacher's instructions could have been more precise regarding the evaluation criteria
130	4	2nd point: learning skills - the division of the topic was a brilliant idea, but they should have discussed them together and then each student to prepare his own paper on the basis of individuals understanding.
137	4	The teacher gave conflicting rules; the students needed to share the information and then write their own papers, rather than writing 1/4 and copying from the others.
153	3	Students cheated by copying 3 others ideas essentially but teacher could have given more instruction to avoid this.
158	4	The teacher provided clear ORAL rules and the students chose not to follow the rules. WRITTEN rules should have been given too.
160	2	It's ambiguous what "their own" final paper means - have they worked on it alone or simply written it alone.
163	3	It is a group work, the teacher should have asked for a group paper not for an individual one.
172	5	Teachers' guidelines could have been clearer perhaps, but what was clear is that students had to hand in their OWN work, which they did not do.
173	4	I would have chosen "Strongly agree" if the teacher had provided clear rules but the students should have understood that they had to finalize the papers as individuals.
178	5	The students did not work together to learn the subject – they researched independently and then copied each others work, so the cooperative learning was lost and the independent thought process was also lost – however, the rules seem clear to me, but possibly ambiguous to a student – the teacher should have stressed the rules of the task more clearly.
179	4	The rules were not extremely clear but the students knew that they were responsible for handing in their own paper.
184	4	Copying was clearly stated as wrong however the emphasis on team work and the lack of individual grading makes their decision to divide the workload understandable.
187	4	While the students did do original work, they copied 3/4 of the assignment from each other, clearly contrary to the teacher's rules. The group should have asked the teacher if dividing the topic into 4 parts was acceptable.
189	4	The teacher emphasized that the final paper should be the student's own work. The approach used by the group of students ensures that only one quarter of the assignment is the student's own work. Three quarters of it is someone else's work.
190	3	The teacher would have thought of the shortcomings the students could follow and would have provided clear guidelines to avoid the situation of dividing the tasks without each student going through the exercise.
191	1	I think that the group took a ingenious approach to the task and I would encourage this behavior rather than punish it - each assignment represents the joint wisdom of the group and allows them to address the topic in much more

		depth than the others - plus there were no grades assigned and if the task was to work as an effective team and come up with creative solutions this was just what the group did.
192	4	The teacher told the students to hand in their "own" final paper.
205	2	As no grades were to be assigned the focus was on teambuilding and finding creative solutions by applying research skills.
206	2	Students did not follow instructions as given, however, in cheating the most important point is intent. In this case the intent was to reduce work load and perhaps delivery a better paper.
208	2	The students followed the assignment instructions, loosely but within reason, and achieved the stated purposes of the exercise.
209	4	The teacher provided rules, which included learning together, but not producing the paper together.
213	4	The students approach was fine as long as they acknowledged the work of their team members appropriately, however they are not submitting "their own" final papers.
221	2	The teacher stressed learning to work as a group and find creative solutions. They did that. The teacher also said that everyone should hand in an individual paper, which implies not cheating, which is the reason that I have not strongly disagreed with Q# 1.

Appendix F
The Codebook for the 'Other' Comments

Code	*Theme*	*Sub-Theme*	*Definition*	*Example*
6Scw	Student collaboration	Copying as wrong	The students copied work, did not write their own paper, and cheated.	*They are copying each other's work*. (Rating = 5)
6Sda	Student collaboration	Task division understand-able	The students' decision to divide the task and share the workload was within reason and understandable given the situation.	*They chose to divide and conquer.* (Rating = 2)
6Sdb	Student collaboration	Task division brilliant	The students' decision to divide the task was an ingenious, highly intelligent approach.	*I think that the group took a ingenious approach to the task and I would encourage this behavior rather than punish it - each assignment represents the joint wisdom of the group and allows them to address the topic in much more depth than the others - plus there were no grades assigned and if the task was to work as an effective team and come up with creative solutions this was just what the group did.* (Rating = 1)
6Rlc	Rule clarity	Low rule clarity but still copying	The teacher's rules should have been clearer but the students copied, neither learning skills nor earning a grade.	*The teacher gave conflicting rules; the students needed to share the information and then write their own papers, rather than writing 1/4 and copying from the others.* (Rating = 4)
6Rnc	Rule clarity	Low rule clarity and confusion	The students did not understand the rules.	*The student did not fully understand the rules of the project.* (Rating = 3)
6Pnc	Purpose	Not graded so cheating	The teacher said the task would not be graded, so the students cheated because they could not fail.	*The teacher said it would not be graded.* (Rating = 4)
6Pmn	Purpose	Mastery emphasis and not graded so not cheating	The teacher stressed team skills and creative solutions instead of grades, so the students' actions	*As no grades were to be assigned the focus was on teambuilding and finding creative solutions by applying research skills.* (Rating = 2)

			were understandable.	
6Spa	School policy	Academic honesty policy awareness	The students should have known the school's academic honesty policy, regardless of the teacher's rules and expectations.	*The teacher did state that each student needed to hand in his own work. While the teacher did not give clear expectations or criteria for the project, almost all schools have plagiarism policies and these need to be enforced.* (Rating = 4)

Appendix G
Mean Ratings and Standard Deviations for Student Grade Levels

		7-8 grade level		9-10 grade level		11-12 grade level	
		Mean	SD	Mean	SD	Mean	SD
High Clarity	Performance	3.60	0.89	4.00	0.00	4.00	0.82
	Mastery	3.67	1.37	3.33	1.15	3.67	1.53
Low Clarity	Performance	3.83	0.98	3.25	1.50	2.50	1.29
	Mastery	3.60	1.14	4.00	0.00	2.50	0.58
No Rules	Performance	3.67	1.03	4.66	0.58	3.50	1.71
	Mastery	3.60	1.34	3.50	1.00	2.75	0.96
High Clarity	Total	3.64	1.08	3.71	0.76	3.86	1.07
Low Clarity	Total	3.73	1.01	3.57	1.13	2.50	0.93
No Rules	Total	3.64	1.12	4.00	1.00	3.00	0.89
Performance	Total	3.71	0.92	3.82	1.04	3.30	1.16
Mastery	Total	3.62	1.20	3.60	0.84	2.91	1.04

Appendix H

Mann-Whitney Test Results for the Teacher Data Set

Mann-Whitney Ranks for the High Clarity and No Rules Comparison

	n	Mean Rank	Sum of Ranks
High Clarity	15	20.47	307.00
No Rules	16	11.81	189.00
Total	31		

Note. Alpha level of .016 (.05/3) was used.

Mann-Whitney Ranks for the High Clarity/Mastery and No Rules/Mastery Interaction

	n	Mean Rank	Sum of Ranks
High Clarity/Mastery	9	12.33	111.00
No Rules/Mastery	8	5.25	42.00
Total	17		

Note. Alpha level of .003 (.05/15) was used.

Appendix I
Classification System for Qualitative Data

Item Two Categories Sorted by Frequency of Observation (n = 281)

Main theme	Sub-theme	Definition	Total
Rule clarity	Clear rules not followed	The teacher provided clear rules and the students chose not to follow the rules.	94
Rule clarity	Unclear rules students tried to follow	The teacher's rules were unclear and the students attempted the task within the rules.	62
Purpose	Mastery emphasis	The teacher stressed the importance of learning skills and the students did not learn the skills.	29
Purpose	Performance emphasis	The teacher stressed the importance of grades and the students found a way to get good grades.	27
Student collaboration	Copying as wrong	The students copied work, did not write their own paper, and cheated.	18
Rule clarity	Low rule clarity but still copying	The teacher's rules should have been clearer but the students copied, neither learning skills nor earning a grade.	16
Rule clarity	No rules to follow	The teacher did not provide any rules and the students had to devise their own rules.	13
Purpose	Mastery emphasis and not graded so not cheating	The teacher stressed team skills and creative solutions instead of grades, so the students' actions were understandable.	6
Student collaboration	Task division understandable	The students' decision to divide the task and share the workload was within reason and understandable given the situation.	6
Student collaboration	Task division brilliant	The students' decision to divide the task was an ingenious, highly intelligent approach.	4
School policy	Academic honesty policy awareness	The students should have known the school's academic honesty policy, regardless of the teacher's rules and expectations.	3
Purpose	Not graded so	The teacher said the task would not be	2

	cheating	graded, so the students cheated because they could not fail.	
Rule clarity	Low rule clarity and confusion	The students did not understand the rules.	1

VITA

Robert Burns Blanchard Jr. was born in New Haven, Connecticut in 1968. He was educated in Connecticut public schools. In 1991, he completed a Bachelor of Arts degree in English at Middlebury College, Vermont. He was on the Dean's List the last three semesters and spent one year of undergraduate study at the University of Edinburgh in Scotland. He later attended the University of Bridgeport, Connnecticut, where he received a Phi Kappa Phi nomination and was awarded a Master of Science degree in Education in 1992. He completed his teacher training in Bridgeport and New Haven public schools in Connecticut. He earned his teaching certification in 1993.

Robert has been working as an educator in Kenya since 1994 and is currently employed by the International School of Kenya as the International Baccalaureate Diploma Program coordinator and high school English teacher. He has served as chairperson of the school's professional development committee since 2006. He has taught in both American and British international schools while in Kenya.

Robert was admitted to Lehigh University's Educational Leadership program in 2005. He earned his K-12 principal certification in 2008. He was promoted to doctoral candidacy in 2010, completed his dissertation study in 2011, and graduated with a Doctorate from Lehigh University's College of Education in 2012.